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FINANCIAL MANAGEMENT IN THE U. S. NAVY'S AFLOAT FORCES: A FUNCTIONAL ANALYSIS OF THE BUDGETARY PROCESS, MANAGERIAL CONTROL TECHNIQUES AND DECISION-MAKING METHODOLOGY

by

William Don James

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FINANCIAL MANAGEMENT IN THE U.S. NAVY'S AFLOAT FORCES: A FUNCTIONAL ANALYSIS OF THE BUDGETARY PROCESS, MANAGERIAL CONTROL TECHNIQUES AND DECISION-MAKING METHODOLOGY

By

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Business Administration of The George Washington
University in Partial Fulfillment of the
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INTRODUCTION

In order to meet the increasing demands and expectations of each segment of this country's population, responsible and responsive financial management, at all levels of government, is becoming of greater importance than ever before. The military establishment has become acutely aware of this, as each year it has been subjected to an ever increasing critical analysis of the programs and the related budget requests for which it seeks approval.

For many years the Navy has been engaged in a continuous effort to improve its financial management practices at all organizational levels. Since 1961, these efforts have been greatly intensified, and the emerging developments have reflected the vast influence which has been exerted by the Department of Defense through the implementation of its Planning, Programming and Budgeting System.

The Planning, Programming and Budgeting System was designed to improve planning as well as resources management. In so doing it has not only effected changes in budgeting procedures, but has also led to the development of a more sophisticated and responsive accounting and reporting system.

The objective of this paper is to provide a functional analysis of the budgetary process, managerial control

techniques, and decision-making methodology within only one segment of the Navy's overall financial management structure--that of the afloat forces.

In terms of dollars and cents, the afloat forces receive only a small percentage--less than 2 percent--of the total Navy Operations and Maintenance appropriation. However, the efficient management of these funds has been high on the Navy's list of continuing problem areas for a number of years.

The author's interest in the subject area of financial management within the afloat forces was developed during a recent tour of duty as an Instructor of Supply Management at the United States Navy Supply Corps School. During this period, the author taught the concept and workings of the system to newly commissioned supply corps officers, participated in study groups designed to review the effectiveness of the system, and assisted in the re-writing of the supply system procedures manual.

The primary question being pursued by this paper is what factors have exerted a major influence on the design of the afloat financial management system, and how effectively does the system function in providing adequate managerial control, optimum use of funds, and accurate data for management decision-making. In seeking to answer this basic question, five subsidiary questions have been considered: (1) what is the impact of the federal budgetary

process upon afloat financial management procedures; (2) how has the Planning, Programming, and Budgeting System, instituted by the Department of Defense in 1961, affected afloat financial management procedures and techniques; (3) what are the specific financial management responsibilities of each organizational element of the afloat forces; (4) what are the problems encountered by both line and staff managers in achieving optimum use of funds and adequate control over afloat financial management operations; and (5) how can the Navy promote more effective managerial control and better decision-making practices within the framework of the present afloat financial management system.

In order to provide suitable answers to these questions, appropriate background is provided on organizational relationships in Chapter I, and on the budget processes within the federal government, Department of Defense, and Department of the Navy in Chapter II. Chapter III discusses and analyzes the afloat financial system and its control features. Chapter IV examines the methodology and problem areas of decision-making in afloat financial management.

Material for this paper was gathered from financial management instructions issued by the Comptroller of the Navy and several type commanders; material management instructions and manuals issued by the Naval Supply Systems Command and the Chief of Naval Operations; a study and analysis of annual supply inspection reports issued by

several type commanders; and personal experience as related above.

Because of the large number of "in-house" Navy terms and acronyms used throughout this paper, a glossary of acronyms and a definition of terms are included as Appendices A and B respectively.

CHAPTER I

ORGANIZATIONAL RELATIONSHIPS AND THE NAVY FINANCIAL MANAGEMENT STRUCTURE

The Navy as an Organizational Element of the Defense Establishment

Formal organization is not all-important. In large-scale organizations, however, it is an unavoidable starting point of inquiry.[1] This statement is most appropriate to the subject of this paper, for, as will be demonstrated throughout the text, the financial management system of the Navy, at any point in recent history, has been dictated in large measure by both its internal structure and the organizational framework of the federal government.

Until the end of World War II, the military establishment of the United States was organizationally divided into two executive departments--War and Navy. The missions of the two departments were clear cut, and therefore each enjoyed the privilege of pursuing its own distinctive pattern of operational and administrative policies, with little interference from either the President or Congress. However, when the events of World War II required consolidated planning and the coordinated execution of these plans, the

---

[1] Paul Y. Hammond, Organizing for Defense (Princeton: Princeton University Press, 1961), p. 4.

Navy and War departments, without centralized direction and control, seemed unable to produce a truly effective operational mode. Consequently, the War was characterized by numerous instances of duplication of effort, gross inefficiencies, and imprudent allocation of resources.

Based on these rather costly experiences, a considerable number of political and military officials were convinced that massive, worldwide, and total war demanded integrated and consolidated planning and execution. It was also the consensus of this group that these elements could not exist within the organizational framework of two separate executive military departments. Therefore, the predominant recommendation for resolving these current problems was unification of the armed services.

The National Security Act of 1947 was the first step forward in providing a National Military Establishment.[1] Between 1947 and 1958, the initial act was amended several times, but the emerging organizational structure provided for the creation of one executive defense agency--the Department of Defense. The act further provided that the Army, Navy, and Air Force be redesignated as separate military departments, thereby forming the structural elements of the new agency.

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[1] The National Security Act of 1947 provided for the establishment of a "National Military Establishment" (since renamed the Department of Defense) and three separate military departments.

The Department of Defense is headed by a civilian Secretary, who is the principal assistant to the President in all matters relating to the operation of the defense establishment. Each of the military departments has a civilian Secretary, who is directly responsible to the Secretary of Defense for the operation and efficiency of his department (see Figure 1). All orders, regulations, administrative and operational policies of the Defense Department are issued by the Secretary of Defense to the service Secretaries. It then becomes the responsibility of the Secretaries of the Army, Navy, and Air Force to see that these orders and policies are instituted within their respective departments.

Under this organization, the overall plans and objectives for the defense establishment are formulated by the Secretary of Defense based on the guidance and direction he receives from the President. The objectives are then categorized, and the task for executing them is assigned to one or more of the services. However, the ultimate authority and responsibility for the successful accomplishment of the objectives rests with the Secretary of Defense. To insure that each objective is accomplished effectively and at the lowest possible cost, the Secretary of Defense constantly exercises his powers of coordination, review, and control.

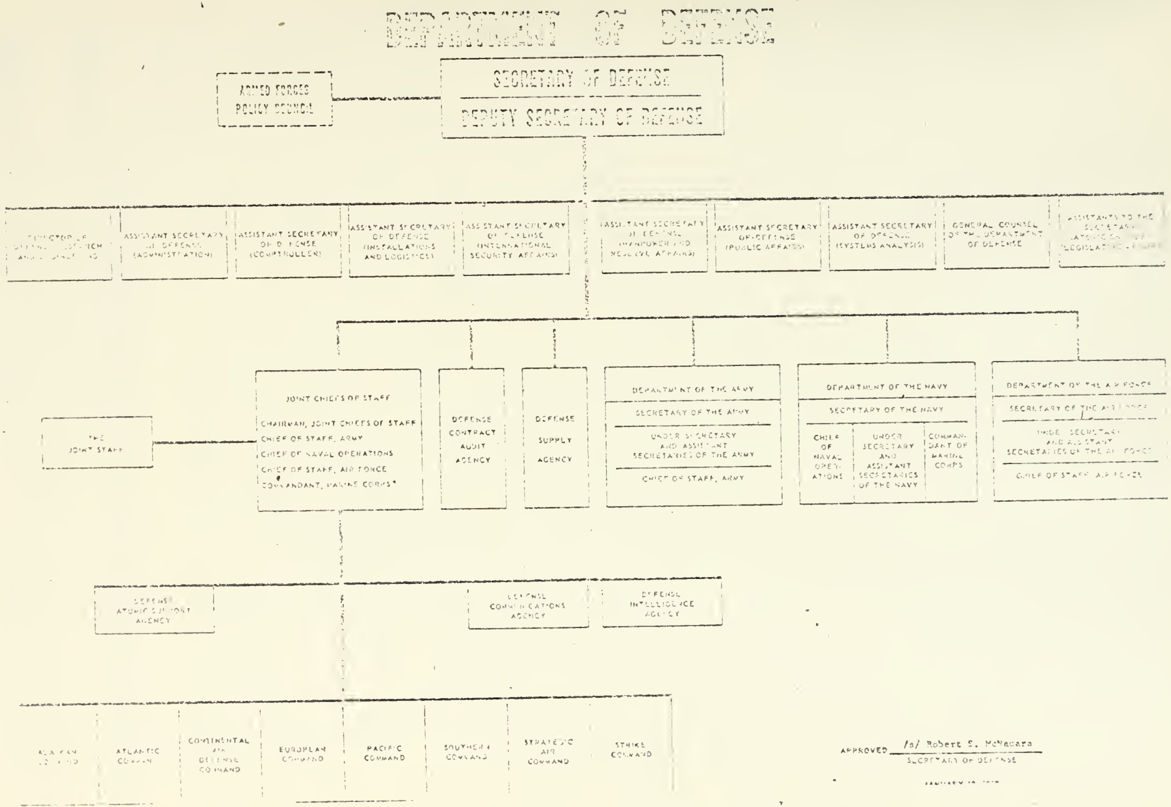
DEPARTMENT OF DEFENSE
ARMED FORCES POLICY COUNCIL
SECRETARY OF DEFENSE
DEPUTY SECRETARY OF DEFENSE
ASSISTANT SECRETARY OF DEFENSE (ADMINISTRATION)
ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS)
ASSISTANT SECRETARY OF DEFENSE (INTERNATIONAL SECURITY AFFAIRS)
ASSISTANT SECRETARY OF DEFENSE (MANPOWER AND RESERVE AFFAIRS)
ASSISTANT SECRETARY OF DEFENSE (PUBLIC AFFAIRS)
ASSISTANT SECRETARY OF DEFENSE (SYSTEMS ANALYSIS)
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
THE JOINT STAFF
JOINT CHIEFS OF STAFF
CHAIRMAN, JOINT CHIEFS OF STAFF
CHIEF OF STAFF, ARMY
CHIEF OF NAVAL OPERATIONS
CHIEF OF STAFF, AIR FORCE
COMMANDANT, MARINE CORPS*
DEFENSE CONTRACT AUDIT AGENCY
DEFENSE SUPPLY AGENCY
DEPARTMENT OF THE ARMY
SECRETARY OF THE ARMY
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE ARMY
CHIEF OF STAFF, ARMY
DEPARTMENT OF THE NAVY
SECRETARY OF THE NAVY
CHIEF OF NAVAL OPERATIONS
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE NAVY
COMMANDANT OF MARINE CORPS
DEPARTMENT OF THE AIR FORCE
SECRETARY OF THE AIR FORCE
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE AIR FORCE
CHIEF OF STAFF, AIR FORCE
DEFENSE ATOMIC SUPPORT AGENCY
DEFENSE COMMUNICATIONS AGENCY
DEFENSE INTELLIGENCE AGENCY
ATLANTIC COMMAND
CONTINENTAL AIR DEFENSE COMMAND
EUROPEAN COMMAND
PACIFIC COMMAND
SOUTHERN COMMAND
STRATEGIC AIR COMMAND
STRIKE COMMAND
APPROVED /s/ Robert S. McNamara
SECRETARY OF DEFENSE

Fig. 1.--Organization of the Department of Defense

Source: U.S., Department of the Navy, Office of the Comptroller, Financial Management in the Navy, NAVPERS 10792-C, 1969.

The Navy Command Structure and Its Financial Management Lines of Authority

The Navy's organization has traditionally consisted of a bilinear structure, with the consumers of resources (operating forces) assigned to the command of the Chief of Naval Operations (CNO), and with the producers (supporting bureaus and offices) reporting to the Secretary of the Navy.[1] Within this organizational framework, the CNO and the operational chain of command were completely dependent upon the support establishment for all material support.

The supporting material bureaus and offices were funded through an appropriation allocation system which distributed funds based on the functions performed. Consequently, the Bureau of Ships managed all the funds for the operation, maintenance, building and conversion of ships. The financial management philosophy of the Bureau of Ships was to keep the spending of the routine operations and maintenance funds as centralized as possible. In so doing, approximately 80 percent[2] of the materials and services required by the afloat forces was funded centrally by the support commands, and therefore issued to the individual ships "free of charge." The remaining funds--approximately 20 percent--were allocated by the Bureau of Ships to the different

---

[1] U.S., Department of the Navy, Bureau of Naval Personnel, Financial Management in the Navy, NAVPERS 10792-C, 1969, p. 16.

[2] U.S., Department of Defense, Office of the Assistant Secretary of Defense (Comptroller), A Primer on Project PRIME, April, 1967, p. 13.

afloat commanders, who in turn granted a portion to each of their ships. The individual ships then utilized the funds they received to procure the materials not provided by the supporting bureaus. Figure 2 depicts this flow of funds.

Under this organizational arrangement, the operational commanders managed and controlled such a small percentage of their total cost of operations that it was extremely difficult to appraise how well a given commanding officer utilized the resources assigned to his command, or to determine the overall cost-effectiveness of the operational unit as a whole.

In May, 1966, the Navy underwent a major reorganization. The bilinear system was abandoned and replaced with a unilinear structure. The basic purpose was to place the support activities under the command of the CNO. Under this new organization, all of the supporting bureaus, with the exception of the Bureau of Naval Personnel and the Bureau of Medicine and Surgery, lost their status as Navy executive offices. In addition, their organizational titles were changed from Bureau to Systems Commands, which more accurately reflected their new organizational role (see Figure 3).

By placing the support functions under the operational chain of command, conditions were more suitable to improve logistics administration at the executive level by

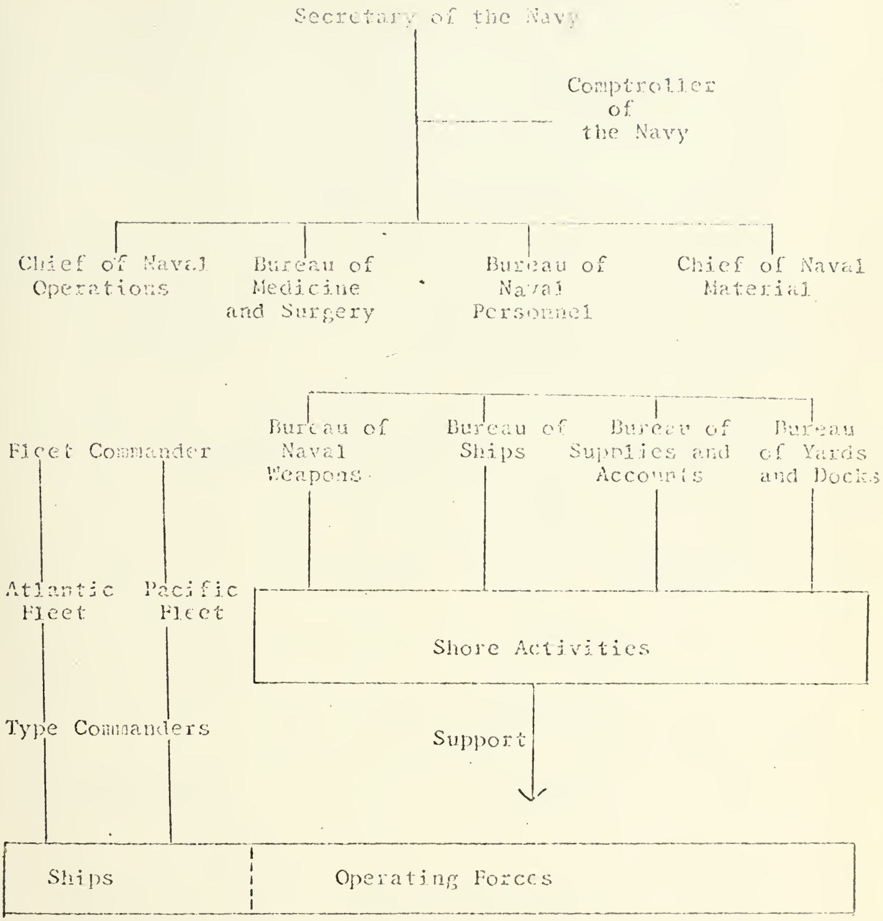

Fig. 2.--Bilinear Organization of the Navy

Note: This figure has been designed to fit the context of this paper. Complete organizational charts of the bilinear structure are no longer available.

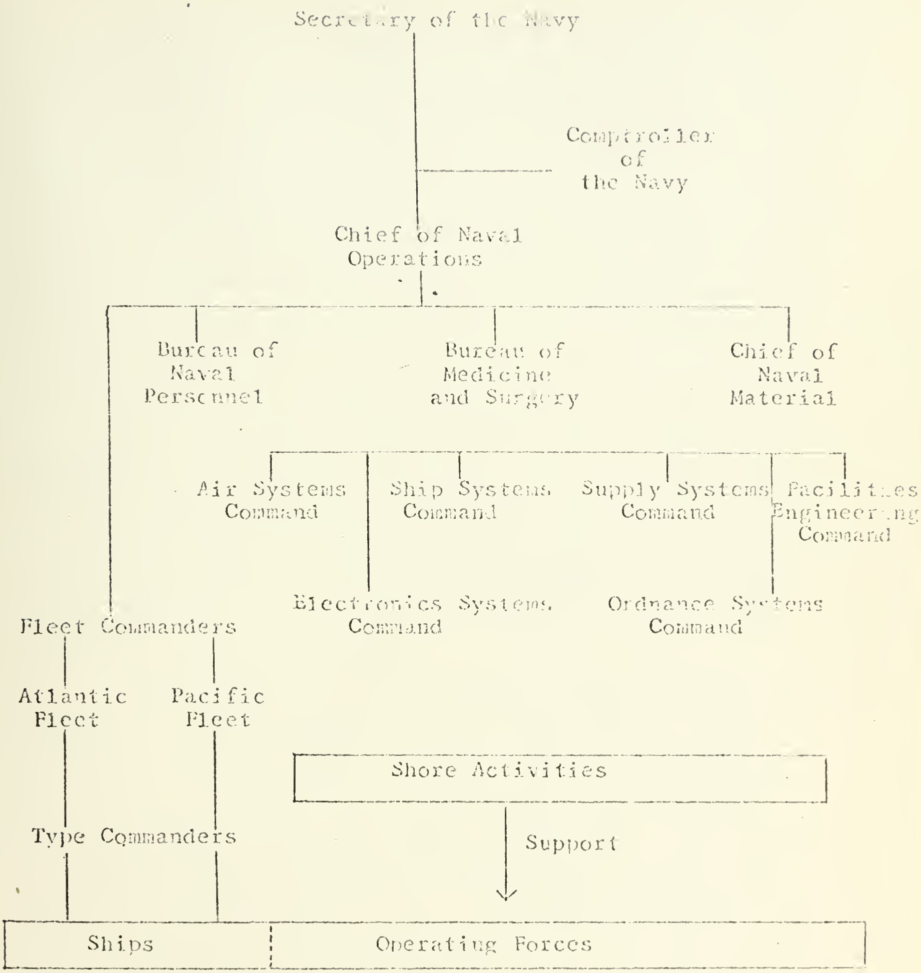

Fig. 3.--Unilinear Organization of the Navy

Note: This figure has been designed to fit the context of this paper. A more complete organizational chart of the Department of the Navy may be found in Financial Management in the Navy, NAVPERS 10792-C, 1969.

providing for better coordination between producer and consumer interests.[1] Changes were also effected in the afloat financial management procedures whereby the cost of virtually all common use materials and supplies was to be funded through the operational chain of command. Consequently, the Naval Ships Systems Command (formerly the Bureau of Ships) retained funding responsibility for only ship overhauls, major conversions, and primary shipboard equipments.

In July 1967, further changes were effected in the management and funding of shipboard repair parts. Hundreds of these items, which had before been issued at "no cost" to the ship, were re-cataloged and assigned issue prices which were to be charged to the operating funds of each ship at the time of purchase.

The changes enumerated above culminated almost ten years of constant endeavor to place operational control, material support functions, and the responsibility for activity funding under one chain of command. Not only did it improve logistics planning, but it also provided the Navy with the data necessary to more nearly determine the total cost of operations for an activity (ship) in terms of total resources applied or consumed.

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[1] Financial Management in the Navy, p. 16.

Organization of the Navy's Afloat Forces: Operational and Managerial Relationships

The organizational structure of the Navy's afloat forces provides for two distinct chains of command--administrative and operational.

The administrative chain is a permanent organization existing to provide continuity, and to insure that the maintenance and administration of ships is properly executed. Within an administrative command, ships are grouped as to general type (i.e., combatants, aircraft carriers, submarines), and each distinct grouping is referred to as a type command. Each type command is further subdivided into flotillas, squadrons, and divisions, but these only serve to improve coordination between the individual ships and the type commander.

Collectively, all of the type commands constitute a fleet which is commanded by a fleet commander. As Figure 3 (page 12) reveals, there are two separate fleets, each of which is a separate entity, but both have substantially identical organizational structures.

In the operational command, ships are grouped on the basis of a specific task to be performed. In such circumstances, ships from several different type commands (aircraft carriers, destroyers, submarines, supply ships, and so on) operate together under a special task force commander. However, once the mission for which the task force was organized has been accomplished, the task force

organization is disestablished, and the member ships resume their regular operational assignments. It should be emphasized that even while the ships are components of a task force, they never lose their administrative ties and responsibilities to their own type commander.

The individual shipboard organization is prescribed by United States Navy Regulations, 1948. Under these regulations the ship's commanding officer has absolute responsibility for the safety and well-being of his ship. He also has the responsibility for the administration of material support, and the efficient utilization and management of all funds and other resources granted to his ship. The regulations provide, however, that he may delegate these latter responsibilities to the ship's supply officer.

The ship's supply officer's duties may be summarized as follows:

> . . . Responsible, under the commanding officer for procuring, receiving, storing, issuing, shipping, transferring, selling, accounting for, and while in his custody, maintaining all stores and equipment of the command. In carrying out this responsibility he shall administer the ship's supplies and equipage funds so that all essential requirements are met . . . .[1]

Even though the primary responsibility for the operational and managerial effectiveness of a ship rests with its commanding officer, most commanding officers rely completely on their supply officers to carry out the

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[1] U.S., Department of the Navy, Bureau of Naval Personnel, Naval Orientation, NAVPERS 16138-E, Revised 1965, pp. 266-77.

day-to-day tasks comprising the ship's material and financial management functions. A more detailed examination of the supply officer's role in carrying out these functions will be presented in Chapters III and IV.

CHAPTER II

THE BUDGETARY PROCESS WITH RELATED ORGANIZATIONAL RESPONSIBILITIES

The Federal Budgetary Process and the Requirements It Places on the Defense Establishment

The Budget and Accounting Act of 1921 placed the responsibility for preparation of the annual federal budget in the hands of the President. He must, therefore, provide the initial guidance and direction to assist the executive governmental agencies in the preparation of their annual estimates.

The President provides this guidance only after he has carefully formulated the nation's objectives in such areas as national defense, domestic programs, and foreign policy. The costs of these and all other government programs are further assessed in terms of their impact on the stability of the nation's economy. The final decisions are difficult, and consequently the President relies heavily on the advice of his cabinet, agency heads, and special executive staffs such as the Bureau of the Budget, Council of Economic Advisors, and the National Security Council.

Based on the overall policy and budgetary guidelines issued by the President, the individual agencies begin the

development of their departmental plans, programs, and budgetary estimates. Even though this entire process is referred to as the budget cycle, federal budget making is not an annual process.[1] It is, rather, a continuing process, and agency planning and programming require the constant interaction of all the participants.

The process of budget preparation for the executive agencies involves three major participants--the Bureau of the Budget, the agencies themselves, and their subordinate organizational units. Among these, there is a constant flow-up and flow-back of information and decisions.[2] This information flow is time-phased, beginning more than fourteen months before the beginning of the fiscal year to which the estimate applies. For the Defense Department, the budget preparation events may be summarized as follows:

(1) Prior to April, based on Presidential guidance and direction, the overall strategic concepts and force levels are developed along with the specific programs necessary to carry out the national defense objectives.

(2) In April, the Defense Department issues its budget call to the three services. Included in the call memorandum is information on resource ceilings, and specific instructions for preparation and submission of the service budgets.

(3) During May and early June, the services review the budgets of their subordinate commands and prepare a consolidated departmental budget for submission to the Department of Defense.

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[1] Jesse Burkhead, Governmental Budgeting (New York: John Wiley and Sons, Inc., 1959), p. 87.

[2] *Ibid.*, p. 89.

(4) During the remainder of the summer, the Department of Defense receives further guidance and changes in ceiling figures from the Bureau of the Budget. Hearings are conducted with the three services and the service budgets are adjusted to reflect revised funding constraints and changes in the defense programs.

(5) By September 30, the consolidated defense budget is submitted to the Bureau of the Budget for detailed examination and review.

(6) During October and November, the Bureau of the Budget conducts hearings with Defense Department officials, and the final monetary and personnel ceilings are established based on last-minute changes in Presidential policy and in the economic forecasts.

(7) In mid-December, the Navy, Army, and Air Force budgets are given a final revision to reflect the last-minute changes mentioned in (6) above.

(8) From January until the appropriation act is passed by Congress, which may be many months later, the Department of Defense and the services testify before Congress to justify their budget requests, after which Congress passes the appropriation bills.[1]

The procedure outlined above is not complete in every detail, but should be sufficient to convey the general nature of the process and the schedule which must be followed in order for the President to be able to submit the national budget to Congress in early January. It should be emphasized again that budgeting is a continuous process, not only in terms of preparation mechanics, but also because each agency is actually working on three budgets at the

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[1] These events are based on the general time table for the formulation and execution of the executive budget presented in David Ott and Attait Ott, Federal Budget Policy (Washington, D.C.: Brookings Institution, 1969), p. 24.

same time: (1) executing the budget of the current year; (2) preparing and justifying the budget for the upcoming fiscal year; and (3) planning and developing the budget for the fiscal year beginning July 1 hence.

Budgeting Within the Department of Defense

The financial management cycle in the Department of Defense, of which budget preparation is one part, begins when the long-range strategic plan for defense is converted to programs, and is completed when the yearly segment of the plan--the annual budget--is carried out. The budgetary system of the Defense Department is no longer a mechanical process of plugging routinely computed statistics into categorical slots on a budget document. Instead, the budget has become a highly scientific management tool by which the Secretary of Defense molds a comprehensive, world-wide plan of action.[1] However, this has not always been the case.

Prior to 1961, the military budget system was characterized by almost complete separation between planning and decision-making, on the one hand, and budgeting on the other.[2] There was serious fragmentation in the formulation

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[1] Charles J. Hitch, Decision Making for Defense (Berkeley: University of California Press, 1965), p. 26.

[2] David Novick, ed., Program Budgeting: Program Analysis and the Federal Government (Cambridge: Harvard University Press, 1965), p. 82.

stages. There were constant struggles among the services for dollars and power, and very little definition of organizational objectives. In essence, there was no coordination of programs toward central objectives, and no attempt to measure alternative means of accomplishing a single objective.

The first major breakthrough in defense budgeting came in 1961 when the newly appointed Secretary of Defense, Robert McNamara, named C. J. Hitch as Defense Department Comptroller.

Hitch instituted a programming process to precede the budget formulation stage.[1] The purpose of the new programming process was to "span the gap" between planning and budgeting. This was to be accomplished by: (1) making explicit the relationship between resources shown in the budget and military missions; (2) quantifying the long-term implications of current budget decisions; and (3) establishing the relationship between long-term planned outputs and short-term inputs.[2] In essence, Hitch proposed to link military planning and budgeting together to produce an integrated planning, programming and budgeting process.

In 1965, Robert Anthony replaced Hitch as Defense Comptroller. McNamara instructed Anthony to build upon,

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[1] Stephen Enke, ed., Defense Management (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1967), p. 32.

[2] Ibid., pp. 32-35.

improve, and simplify the system started by Hitch, but to devote special emphasis to a Defense Department management control system which would serve the needs of managers at all levels.

Anthony found that one of the basic problems of the Hitch system was its failure to distinguish clearly between operating and investment costs for use in both program analysis and budget estimates. Therefore, he published a list of definitions which provided the basis for achieving agreement in the costs reported in the different categorical analyses and reports.

A further aspect of Anthony's program was to lodge against each organizational unit all measurable expenses incurred. The intent was to provide factual cost data to all managers, and at the same time institute a requirement for activity planning and budgeting in terms of expected performance. In the final analysis, the program called for a measurement of actual performance against planned performance and then a relation of resources consumed to work accomplished. Anthony named the system the Department of Defense Resources Management System (RMS).

At the present, the Resources Management System and one of its subsystems, Project PRIME (Priority Management Effort), provide the basic procedures for the conduct of planning, programming, budgeting and management

accounting by all Defense Department activities.[1]

Under the Department of Defense Planning, Programming and Budgeting System, the process of planning involves the establishment of goals and objectives, the strategies and tactics designed to attain them, and a statement of requirements, such as forces and weapons systems, necessary to implement the strategies. This process concentrates on a look at the future from the standpoint of the present.

In actuality, the system is integrated in such a way that it becomes quite difficult to separate planning and programming, as the planning process becomes interfaced with and pervaded by the program budget structure. Nevertheless, planning embraces decision-making which utilizes systems analysis to examine quantitatively the costs and benefits of the various means of accomplishing the military objectives. From this analysis, an attempt is made to rank alternative mixes of forces in terms of military effectiveness, and thereby choose the most effective means at the least cost.

Programming may be described as the more specific determination of manpower, material, and facilities necessary to accomplish a program,[2] and therefore translates the plans into the more specific elements, projects, or decision units. It also assigns time-phased schedules to

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[1] A Primer on Project PRIME, p. 7.

[2] Novick, Program Budgeting, p. 91.

these elements, and determines the specific resource requirements for each element, for each fiscal year. Through the identification of resource constraints, programming makes plans attainable.

Programming seeks to improve the planning process through the designation of major programs and the elements which comprise them. The major programs reflect the primary missions to be performed, and the program elements identify the major resources necessary to accomplish the primary missions. The Defense Department classifies its operations under nine major programs as follows:

1. Strategic Forces
2. General Purpose Forces.
3. Specialized Activities.
4. Airlift and Sealift.
5. Guard and Reserve Forces.
6. Research and Development.
7. Logistics.
8. Personnel Support.
9. Administration.[1]

It is within this program structure that the planning phase is actually completed, as the cost-effectiveness studies and benefit analysis discussed above provide the remaining quantitative data required for the preparation of the budget. It should be noted, however, that the programming process requires that all budgetary estimates for resource requirements be extended eight years into the future for military forces and five years for all other categories.

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[1] A Primer on Project PRIME, p. 34.

The Navy carries out this integrated planning, programming and budgeting process as described below.

The United States Navy's Budget: The Processes of Formulation and Execution

Planning and programming in the Department of the Navy are conducted by the Office of the Chief of Naval Operations (CNO). The Navy's long- and mid-range objectives are translated into a program objective document which shows the mix of weapons systems and force levels required to execute an assigned task. This document is approved by the Secretary of the Navy and is sent to the Department of Defense for review, coordination with the other services, modification, and approval. In the approved format, it reveals a time-phased listing, by priority, of the defense programs to be executed by the Navy.

Of the plans mentioned above, the mid-range, more commonly called the Five Year Defense Program (FYDP), is the one which has the greatest importance in the formulation of the annual budget requests, for it is the mid-range plan that actually sets forth those programs that have been approved by the Secretary of Defense for the time span encompassed by the current budget.[1] Therefore, it is these programs that actually form the basis of the budget, and it is their costs which must be reflected, in annual increments, in the Navy's budget request.

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[1] *Financial Management in the Navy*, pp. 64-65.

Responsibility for the formulation of the Department of the Navy's budget rests with the Comptroller of the Navy (NAVCOMPT). Based upon the approved Navy program objectives, issued by the CNO to the various naval commands, NAVCOMPT issues a call for annual budget estimates. The call is addressed to all naval bureaus, offices, and major commands and includes information on submission dates and supplementary instructions to aid the commands in the detailed preparation. Based on the call issued by NAVCOMPT the major bureaus and commands then issue instructions to each of their subordinate commands concerning preparation techniques and submission dates.

Each command's budget is reviewed many times before it is finally incorporated as part of the Department of the Navy's budget. The first review takes place within the local command. Subsequent reviews are conducted at each higher organizational level, with revisions taking place at each level of review. However, in a logical sense, each activity's budget must be viewed as that command's estimate of the funding required to carry out its assigned portion of the Navy's program objectives.

The most extensive review of the Navy's budget is conducted in the Office of the Secretary of the Navy by the Comptroller. The primary purpose of this review is to consolidate the individual command estimates into a co-ordinated Department of the Navy budget. In reviewing the

budget, NAVCOMPT has no authority to make program decisions or changes. The Comptroller is responsible, however, for raising fundamental program questions bearing on the budget and for pointing out the budget implications of such questions.[1]

At the present time, Congress will not accept budget estimates in the program format.[2] Therefore, after the consolidated Navy budget has been prepared, NAVCOMPT must recast the program structure into the following five-group military appropriations structure used by Congress.[3]

1. Military Personnel.
2. Operations and Maintenance.
3. Procurement.
4. Military Construction.
5. Research, Development, Test and Evaluation.

After this format conversion has been accomplished, the Navy budget is forwarded to the Department of Defense for review and consolidation with the budgets of the Army and Air Force. From that point on, the Navy's budget becomes only one part of the total defense budget. As such, it is subjected to the review and approval process conducted by the Bureau of the Budget, the President, and the Congress, as outlined earlier in this chapter.

Subsequent to the appropriation enactment by Congress and signature by the President, the appropriated

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[1] Ibid., p. 70.

[2] A Primer on Project PRIME, p. 45.

[3] Financial Management in the Navy, p. 70.

funds become available for obligation. This begins the execution phase of the budget process.

Stated in simple terms, budget execution is no more than the accomplishment of a plan. Technically, however, it is a process established to achieve the most effective, efficient, and economical use of financial resources in carrying out the program for which the funds were approved.[1]

Budget execution in the Navy begins on July 1, the first day of the fiscal year covered by the budget, and ends when a record is made of the payment of the last dollar properly chargeable to the particular year's budget. Normally this is accomplished within a three-year period, but in some instances may run for a considerably longer time.

Obligation, or the actual spending of funds granted under an annual appropriation, may occur only during one fiscal year. To prevent expenditures in an amount above that appropriated by Congress, the rate of spending is closely controlled through an apportionment process administered by the Bureau of the Budget. Under this procedure, the Bureau of the Budget, based on the requests of the departmental recipients, makes available only a certain percentage of the total authorization during a particular time period, normally a calendar quarter. Therefore, agency spending during this quarter is restricted to the amount

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[1] *Ibid.*, p. 94.

so apportioned unless prior approval for an increase is obtained.

Upon receipt of the quarterly apportionments, the Comptroller of the Navy allocates the appropriation to the various Navy bureaus, offices, and major commands. These activities make further funds allocations to their subordinate commands to be used to procure the material, supplies, and services necessary to support their operations.

The Role of the Fleet Commander, Type Commander, and Ships in the Navy's Budgetary Process

As set forth in the organizational structure presented in Figure 3 (page 12), these commands comprise the largest segment of the operating forces. Organizationally, they report to the Chief of Naval Operations, and it is through this chain of command that they receive their missions and funding.

Budget preparation and execution for the fleet is coordinated through a special fiscal office within the Chief of Naval Operations Office, known as CNOBO (Chief of Naval Operations Budget Office). The procedures for preparation of the fleet budgets by the fleet and type commanders are essentially the same as those described earlier in this chapter for the other major Navy commands. However, because the individual ships are, on the whole, such small operational units, it is not feasible to have

each of them prepare detailed budget requests. Instead, the type commanders consolidate the funding requirements of their ships on the basis of the previous year's consumption of material, adjusted for anticipated changes in the pattern of operations.[1] (The procedures used by the type commanders to collect this financial data will be discussed fully in Chapter III.)

The operations and maintenance funds for the fleet are issued to the type commanders through the fleet commanders in the form of operating budgets (OB's). These OB's are subdivisions of appropriations, more commonly called allotments, and are subject to all the regulations concerning the obligation and expenditure of any appropriated funds. The ships, however, receive their portion of these funds, not in the form of allotments, but as operating targets (OPTARS). OPTARS are not subject to the spending regulations and limitations which pertain to regular allotments under the provisions of 31 U.S. Code, Section 3679,[2] but are subject to the administrative restrictions imposed by each type commander acting as a funds administrator. Consequently, the commanding officer

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[1] U.S., Department of the Navy, Office of the Comptroller, Financial Management of Resources (Operating Forces) NAVSO P-3013, March, 1968, pp. 2-3 - 2-6.

[2] See Appendix B of Financial Management in the Navy for the provisions of this law.

of each ship is held administratively responsible to the type commander for the effective and economical use of funds and material within his command,[1] and for insuring that his ship does not overspend its OPTAR grant.

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[1] _Financial Management of Resources (Operating Forces)_, p. 2-6.

CHAPTER III

A DISCUSSION AND ANALYSIS OF THE AFLOAT FINANCIAL MANAGEMENT SYSTEM AND ITS CONTROL FEATURES

The Navy Accounting System and Its Managerial Control Features

Accounting is one of the mechanisms by which those to whom spending authority has been delegated can render a reliable record of their stewardship.[1] The accounting system of an organization should also form one of the bases of the management control system which seeks to insure that resources are obtained and used effectively and efficiently in accomplishing the organization's objectives.[2] The Navy's accounting system functions in both these capacities, and in so doing it has three basic purposes:

1. As required by law, to report the use of funds under the various appropriations granted to the Navy by Congress.
2. To control the obligation and expenditure of funds and thus prevent their exceeding the limitations imposed by Congress, or by fund administrators at the various organizational levels.
3. To provide analyses of the cost of accomplishing the Navy's objectives, in order to furnish

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[1] *Financial Management in the Navy*, p. 121.

[2] Robert N. Anthony, John Dearden, and Richard F. Vancil, *Management Control Systems, Cases and Readings* (Homewood, Ill.: Richard D. Irwin, Inc., 1965), pp. 2-3.

> management at all levels with the information necessary to insure the most efficient utilization of scarce resources, and to effect organizational goal congruence.[1]

To fulfill these purposes, the Navy accounting system provides the accounts, records, and procedures necessary for classifying, recording, summarizing and reporting all financial transactions.

The design of the system is characterized by three features: (1) double entry method of accounting; (2) entries that are recorded on an accrual basis; and (3) integration of the cost accounting records with the general books of account. These features make the system capable of producing the following elements of control:

1. Management controls - To insure the effective use of all resources (input) in relation to mission performed (output).
2. Cost controls - To insure that costs incurred are related to work authorized within the purview of the functions of the activity.
3. Accounting controls - Which consist of the administrative procedures employed to maintain and prove the accuracy and propriety of transactions and related accounting records.
4. Budgetary controls - Which consist of an established operating budget, the accumulation of data on the same basis as the operating budget, and taking the action necessary to keep operations in line with the operating budget objectives.[2]

This accounting system revolves around the general ledger in which all entries affecting the balance of the

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[1] Financial Management in the Navy, pp. 150-52.

[2] Financial Management of Resources (Operating Forces), p. 4-5.

operating budget (OB) are summarized. The general ledger account structure is specifically designed to accumulate the financial data necessary to accomplish the objectives of the system, and to provide data for the conversion of operating results to the requirements of appropriation accounting. In meeting the requirements of appropriation accounting, the system places emphasis on the source, application, and status of the funds granted by Congress. Statistical data are provided for the supporting schedules and cost analyses by the functioning of an ancillary cost accounting system which accumulates the costs incurred by cost center and expenditure classification.

In order to facilitate the recording of transactions in the proper ledger account, each time funds are spent an accounting classification code is placed on the procurement document. An example of this coded accounting data for the afloat forces is presented in Figure 4.

The official accounting records for the afloat forces are maintained by two ashore finance centers--the Navy Regional Finance Centers (NRFC) at Norfolk, Virginia, and San Diego, California. Utilizing their computer facilities, the NRFC's summarize the individual accounting transactions and provide the afloat commands with cumulative financial reports at the end of each accounting period. The reports show each fund administrator (major command) and OPTAR holder (ship) the current status of his funds.

The Complete Code: 1791804.702C-57017-60957-R04901/KR

Appropriation Symbol	1791804	Identifies funds as a Navy appropriation, for fiscal year 1969, to be used for the purpose of funding the operations and maintenance (O&MN) of the fleet.
Appropriation Subhead	702C	A subdivision of the basic O&MN funds to be held by CINCPACFLT to finance the operations of his command.
Allotment	57017	Unit Identification Code of the holder of the operating budget--COMCRUDESPAC.
Authorization Accounting Activity	60957	Ashore activity which maintains the official accounting records for these funds.
Unit Identification Code	R04901	Identifies the individual unit (ship) spending the funds.
Fund Code	KR	Designates the purpose for which the funds were expended--repair parts, in this illustration

Fig. 4.--Illustration of Accounting Classification Code for an Afloat Unit

The reports include data on the total amount of funds granted to date; expenditures to date; and the unexpended balance.

Without the information provided by these accounting reports, it would be very difficult to carry out a program of responsive financial management at any organizational level. However, with the measurement indices indicated above, the individual ship, the type commander, the fleet commander, and the CNO are acutely aware of the total cost of their operations at a given date. Therefore, each commander has available the information necessary to improve his decision-making capability, and consequently to effect necessary changes in operational patterns to remain within funding limitations.

Financial Management at the Fleet Commander, Type Commander, and Shipboard Levels

As indicated in preceding discussion (see Chapter II), the fleet commanders and type commanders are the major operational commanders of the afloat forces. Therefore, they are the holders of the allotments and operating budgets issued by the CNO to support fleet operations, and are primarily responsible for instituting the principles and procedures of good financial management in the use of these funds.

The Comptroller of the Navy (NAVCOMPT) prescribes the basic procedures for financial management in the afloat

forces. These procedures focus around the expenditure and control of the operating budgets, and are administered, to a great extent, through an afloat accounting system known as Supply and Equipage OPTAR Accounting. Before proceeding with a discussion of the afloat accounting system, it should be noted that this "subsystem" is an integral part of the Navy-wide accounting system discussed in the previous section, and therefore functions in accordance with its rules and within its basic accounts structure. The basic objectives of the afloat financial management system may be stated as follows:

1. To determine the cost of operation of an activity in terms of total resources consumed or applied.
2. To establish a system of controls that will be of maximum value to management in assuring that resources are used effectively and efficiently in accomplishing the mission of an activity.[1]

The majority of the funds granted to the fleet commands come from the Navy's Operations and Maintenance appropriation. In exercising financial management over the funds, the fleet commanders and type commanders subdivide their allocations into smaller operating budgets or expense operating budgets (EOB's)[2] which are used to finance their day-to-day operations. These funds are expended for such items as ship repair parts, consumable supplies, equipage, fuel oil, medical and dental supplies, and other similar materials and services.

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[1] _Ibid._, p. 1-4.

[2] See Appendix B for an exact definition of EOB.

The individual ship, squadron, or afloat staff is the activity which actually spends most of these funds. Therefore, to enhance the financial management effort, each of these individual units is granted a portion of these EOB's in the form of an Operating Target (OPTAR). The OPTAR represents a funding limitation granted to each unit for the purpose of financing its material requirements, and consequently fixes administrative responsibility on the unit commander for the effective use of these funds in carrying out his assigned operational mission.

Some of the material requirements of the ships are beyond the management control of the individual commanding officers, and therefore should not be included in their OPTAR funding limitation. To cover the cost of such materials and services (ships' fuel, utilities, overhaul costs, medical and dental supplies, and so on), the fleet commanders and type commanders have established special funds (EOB's) at their central headquarters. Any individual ship having a need for one of these centrally funded items makes the necessary arrangements for its procurement, but indicates on the procurement document that the cost is to be charged to the special type or fleet commander fund.

The accounting and budgeting for these centrally held funds are handled entirely by the personnel of the fleet and type commander staffs, and therefore fall outside the regular shipboard OPTAR accounting system. The expense

of all other material requirements is lodged against the ship's funds, and must be accounted for in accordance with the afloat OPTAR accounting procedures.

The OPTAR accounting system is a function of each ship's financial management efforts. Even though, as mentioned above, the basic features of the system are established by NAVCOMPT, the type commanders are allowed considerable latitude in the implementation and operation of the system within their commands.[1] The system, however, does require that the inputs from the ship to the ashore accounting offices (NRFC's) be in a standard format,[2] and that the ships maintain a set of internal records to provide for adequate managerial control over the expenditure of their operational funds.

The OPTAR Accounting System is designed not only to provide an up-to-date record for shipboard funds, but also seeks to accomplish the following to assist the afloat managers in performing their financial management responsibilities:

1. Provides a line item analysis of obligations and expenditures.
2. Assists the ship in identifying and reconciling all charges lodged against its funds.
3. Provides a set of local records that are suitable to internal audit.
4. Provides a complete financial history to facilitate planning and budgeting by each unit.

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[1] Financial Management of Resources (Operating Forces), p. 5-70.

[2] Ibid., chap. v.

OPTAR Accounting Responsibilities of the Ship and the NRFC

The obligation[1] of funds by the ship, which occurs when the ship places a requisition (order) for material, sets the OPTAR accounting system in motion.

Each ship is required to maintain a Requisition/OPTAR Log (Figure 5) in which is recorded the amount of funds received from the type commander, and the value of each requisition document which reduces the available balance of those funds. The transactions recorded must also show the date, requisition number, description, and stock number of the item ordered. Since one of the purposes of the log is to provide a complete historical record of all the ship's financial transactions, an entry is also made in the log for those items ordered by the ship but paid for by the type or fleet commander's centrally held funds. But, in this case, the money value is marked as "N/C" (not chargeable to the ship) and the available balance is not reduced.

The columns marked "Estimated Cost Chargeable" and subheaded "E," "R," and "Other" contain the fund codes applicable to the material ordered. The fund codes serve to abbreviate the complete accounting classification code illustrated in Figure 4 (page 35), and also specifies the nature of the material, such as repair parts, equipage,[2] consumable, and so on.

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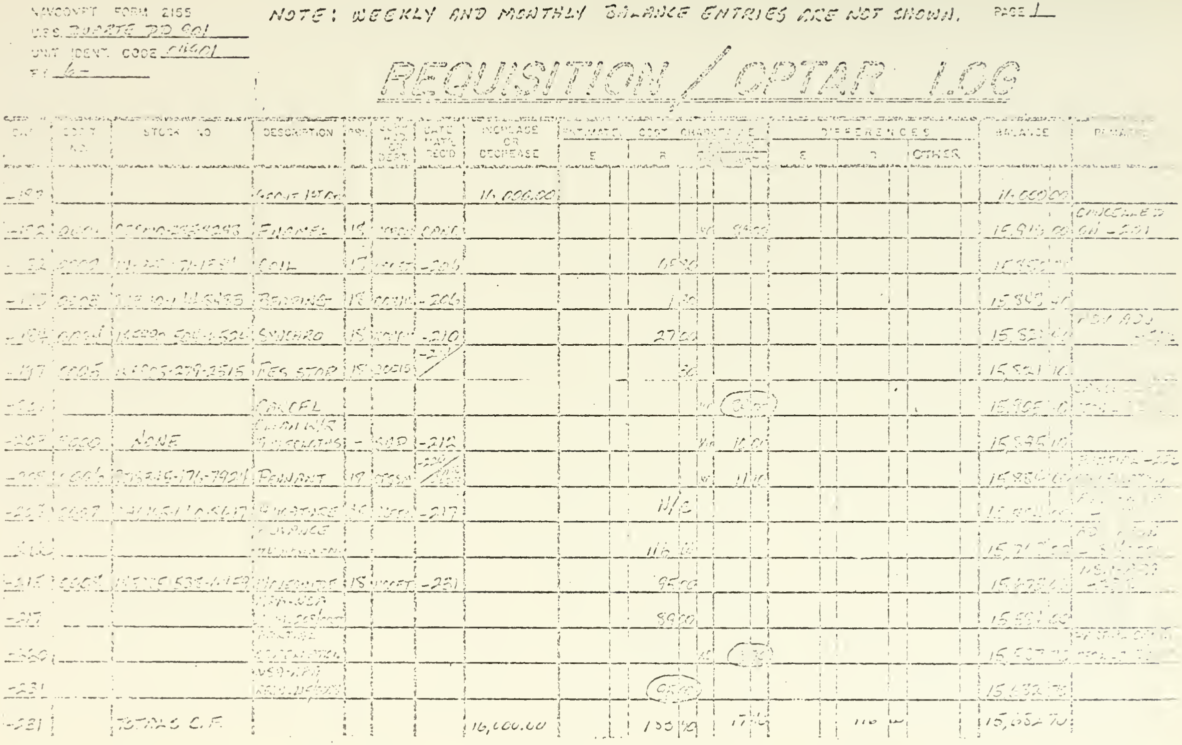
[1] See Appendix B for a formal definition of obligation.

[2] See Appendix B for a definition of equipage.



NAVCOMPT FORM 2155
USS [illegible] DD 901
UNIT IDENT. CODE [illegible]
FY 6-

NOTE: WEEKLY AND MONTHLY BALANCE ENTRIES ARE NOT SHOWN. PAGE 1

REQUISITION / OPTAR LOG

DAY	COPY NO.	STOCK NO.	DESCRIPTION	PRI.	[illegible]	DATE MAT'L REC'D	INCREASE OR DECREASE	ESTIMATED COST CHARGEABLE E	R	[illegible]	DIFFERENCES E	R	OTHER	BALANCE	REMARKS
-199			[illegible]				16,000.00							16,000.00	
-202	0001	[illegible]	FUNNEL	15	[illegible]	CANC				85.00				15,915.00	CANCELLED ON -231
[illegible]	0002	[illegible]	COIL	15	[illegible]	-206			[illegible]					[illegible]	
[illegible]	0003	[illegible]	BEARING	15	[illegible]	-206			[illegible]					[illegible]	
-204	0004	[illegible]	SYNCHRO	15	[illegible]	-210			27.00					[illegible]	[illegible]
-207	0005	[illegible]-279-2515	RES STOR	15	[illegible]	[illegible]			[illegible]					[illegible]	
[illegible]			CANCEL							[illegible]				[illegible]	[illegible]
-208	0000	NONE	[illegible]	-	SUP	-212				10.00				15,595.10	
[illegible]	0006	[illegible]-176-7921	PENNANT	15	[illegible]	[illegible]				[illegible]				[illegible]	[illegible]
[illegible]	0007	[illegible]	[illegible]	[illegible]	[illegible]	-217			N/C					[illegible]	[illegible]
[illegible]			[illegible]						[illegible]					[illegible]	[illegible]
[illegible]	0008	[illegible]	[illegible]	15	[illegible]	-231			95.00					[illegible]	[illegible]
-217			[illegible]						89.00					[illegible]	
[illegible]			[illegible]							[illegible]				[illegible]	[illegible]
-231			[illegible]						[illegible]					[illegible]	
-231		TOTALS C.F.					16,000.00		[illegible]	[illegible]		[illegible]		[illegible]	

Fig. 5.--Illustration of the Requisition/OPTAR Log

Source: U.S., Department of the Navy, U.S. Navy Supply Corps School, Supply Management Problems, Part II (6ND-NSCS-P-14, Rev. Nov. 1968).

The Requisition/OPTAR Log might be described as the "focal point" of the afloat financial management system, as it documents both accounting information and the value of funds expended. Each entry made in the log is substantiated by a group of document files. These files are comprised of copies of the requisition documents which are placed therein after the appropriate entry has been made in the log. One of these files, designated as holding file number 1, contains the accounting copy of the requisitions.

At the end of each week, the accounting copies in holding file number 1 are mailed to the NRFC, along with a summary transmittal document. These documents are utilized by the NRFC to lodge an obligation against the ship's OPTAR, and therefore place in reserve enough funds to cover the cost of the material ordered by the ship.

After the ship makes the necessary entries in its internal files and records, the original copy of the requisition document is forwarded to a supply activity. When the supply activity issues the material, it sends an expenditure document (a bill) for the cost of the material to the NRFC. The NRFC, through the operation of the accounting system, proceeds to match the expenditure document with the previously recorded obligation document sent in by the ship. If the two documents match as to document number, dollar amount, and fund code, the obligation is removed and a final expenditure lodged on the accounting

ledgers.[1] When all data elements match with the exception of price, the difference is computed and either added to or subtracted from the OPTAR balance. The result of all these transactions is reflected on an accounting report forwarded to the ship on a monthly basis. This accounting report, the Filled Order/Expenditure/Difference List (Figure 6), is then utilized by the ship to adjust its Requisition/OPTAR Log for differences between the estimated price, at the time the order was placed, and the actual price charged by the supply activity.

Often, however, a match cannot be effected because of differences in document numbers or fund codes, failure of the ship to submit an obligation copy to the NRFC, or a number of other reasons. To account for situations of this type, the NRFC's produce two other accounting reports--the Unmatched Expenditure Listing and the Aged Unfilled Order List, an illustration of which can be found in Figure 7. These two reports, which reflect a listing of those documents held by the NRFC for sixty and ninety days, respectively, without a match being effected, are forwarded to the ship for reconciliation action.

The ship seeks to determine the cause for the "non-match" situation by examining all of its accounting files and records. Once the source of the error is located the ship makes the appropriate correction to its records,

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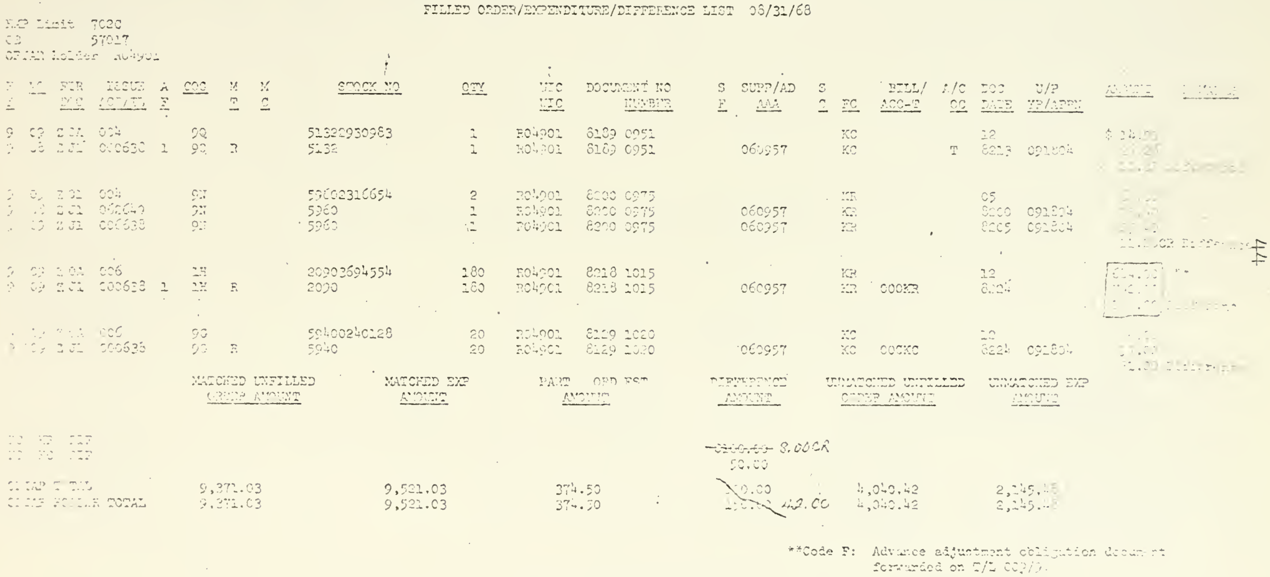
[1] Financial Management of Resources (Operating Forces), p. 5-76.



FILLED ORDER/EXPENDITURE/DIFFERENCE LIST 08/31/68

[illegible] Limit 7020
[illegible] 57017
[illegible] Holder R04901

[illegible]	[illegible]	FIR [illegible]	ISSUE [illegible]	A E	COG	M T	M C	STOCK NO	QTY	UIC UIC	DOCUMENT NO NUMBER	S F	SUPP/AD AAA	S C	FC	BILL/ ACC-T	A/C OC	DOC DATE	U/P YR/APPN	[illegible]	[illegible]
9	09	Z 0A	004		9Q			51322930983	1	R04901	8189 0951				KC			12		$ 14.[illegible]	
[illegible]	08	Z JL	000630	1	9Q	R		5132	1	R04901	8189 0951		060957		KC		T	8213	091804	[illegible]	
[illegible]	[illegible]	Z 01	004		9N			59602316654	2	R04901	8200 0975				KR			05		[illegible]	
[illegible]	[illegible]	Z JL	002649		9N			5960	1	R04901	8200 0975		060957		KR			8200	091804	[illegible]	
[illegible]	09	Z JL	000638		9N			5960	1	R04901	8200 0975		060957		KR			8205	091804	[illegible]	
																				11.[illegible]CR Difference	
9	09	Z 0A	006		1H			20903694554	180	R04901	8218 1015				KR			12		[illegible]	
9	09	Z JL	000638	1	1H	R		2090	180	R04901	8218 1015		060957		KR	000KR		8224		[illegible]	
[illegible]	[illegible]	[illegible]	006		9G			59400240128	20	R04901	8129 1020				KC			12		[illegible]	
9	09	Z JL	000635		9G	R		5940	20	R04901	8129 1020		060957		KC	00CKC		8224	091804	[illegible]	
																				1.00 Difference	

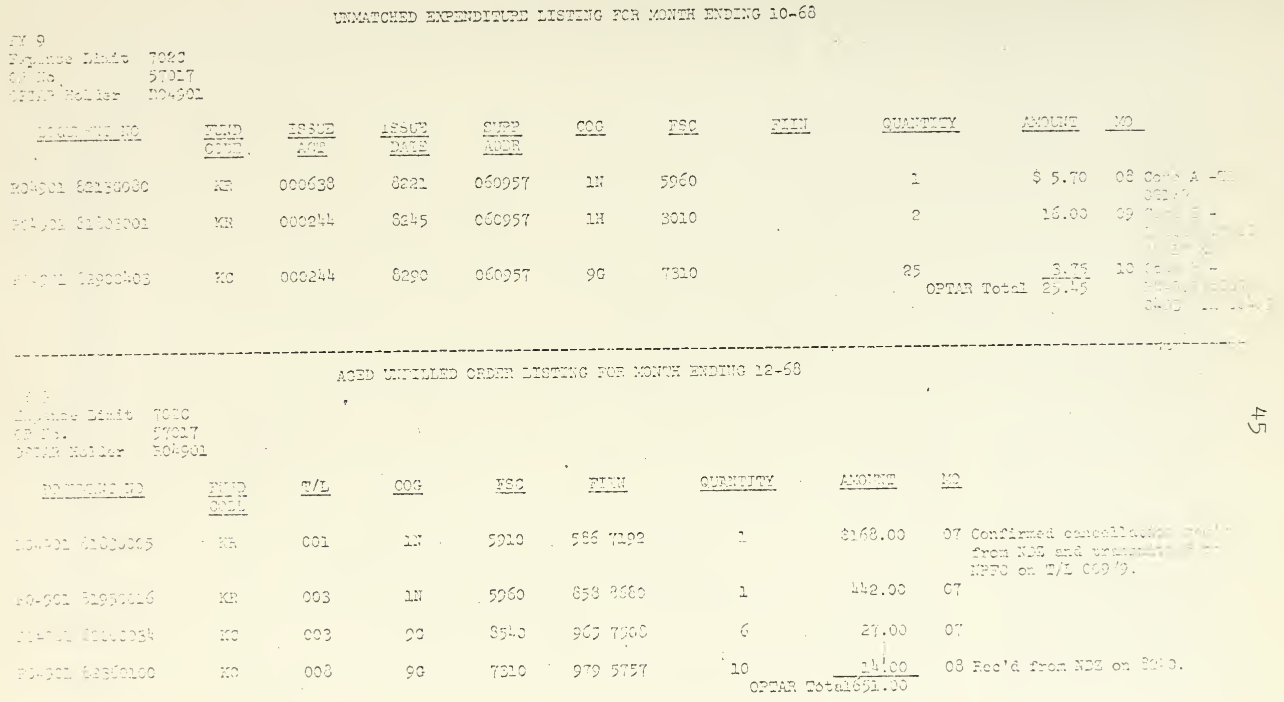
	MATCHED UNFILLED ORDER AMOUNT	MATCHED EXP AMOUNT	PART ORD EST AMOUNT	DIFFERENCE AMOUNT	UNMATCHED UNFILLED ORDER AMOUNT	UNMATCHED EXP AMOUNT
[illegible] DIF						
[illegible] DIF				~~[illegible]~~ 8.00CR 50.00		
[illegible] TOTAL	9,371.03	9,521.03	374.50	~~[illegible]0.00~~	4,040.42	2,145.[illegible]
[illegible] TOTAL	9,371.03	9,521.03	374.50	~~[illegible]~~ 42.00	4,040.42	2,145.[illegible]

**Code F: Advance adjustment obligation document forwarded on T/L C0P/[illegible].

DIFF LESS THAN $10.00 $10.89

Fig. 6.--Illustration of the Filled Order/Expenditure/Difference List

Source: U.S., Department of the Navy, U.S. Navy Supply Corps School, Supply Management Problems, Part II (6ND-NSCS-P-14, Rev. Nov, 1968).



UNMATCHED EXPENDITURE LISTING FOR MONTH ENDING 10-68

FY 9
Expense Limit 7020
OP No. 57017
OPTAR Holder R04901

DOCUMENT NO	FUND CODE	ISSUE ACT	ISSUE DATE	SUPP ADDR	COG	FSC	FIIN	QUANTITY	AMOUNT	MO
R04901 8213G030	KR	000638	8221	060957	1N	5960		1	$ 5.70	08 Conf A -[illegible] 082[illegible]
[illegible]	KR	000244	8245	060957	1H	3010		2	16.00	09 [illegible]
[illegible]	KC	000244	8290	060957	9G	7310		25	3.75	10 [illegible]
								OPTAR Total	25.45	

AGED UNFILLED ORDER LISTING FOR MONTH ENDING 12-68

[illegible]
Expense Limit 7020
OP No. 57017
OPTAR Holder R04901

DOCUMENT NO	FUND CODE	T/L	COG	FSC	FIIN	QUANTITY	AMOUNT	MO
[illegible]	KR	001	1N	5910	586 7192	1	$168.00	07 Confirmed cancellation [illegible] from NDZ and unmatched [illegible] NPFC on T/L 009/9.
[illegible]	KR	003	1N	5960	858 3680	1	442.00	07
[illegible]	KC	003	9G	8540	965 7968	6	27.00	07
[illegible]	KC	008	9G	7310	979 5757	10	14.00	08 Rec'd from NDZ on 8[illegible].
						OPTAR Total	651.00	

Fig. 7.--Illustration of the Unmatched Expenditure Listing and the Aged Unfilled Order Listing

Source: U.S., Department of the Navy, U.S. Navy Supply Corps School, Supply Management Problems, Part II (6ND-NSCS-P-14, Rev. Nov, 1968).

annotates the facts on the accounting listing, and returns it to the NRFC. The NRFC then uses the information provided by the ship to correct the official accounting records. Unfortunately, this reconciliation process is often a very time-consuming effort for the ship, a problem which will be pursued further in Chapter IV.

The OPTAR accounting procedures require that the ship balance the Requisition/OPTAR Log weekly, and at the end of each month. At the month's end, a Budget/OPTAR Report (Figure 8) is prepared which reflects the cumulative year-to-date status of the ship's funds. This report is forwarded to the type commander and the NRFC. The type commander uses the report to keep a current check on the amount of funds spent by each ship; and the NRFC uses the report to verify that the ships are reconciling and taking corrective action on the financial listings mentioned above. It should also be mentioned that the Budget/OPTAR Report forms the basic input for the monthly Status of Fund Authorization Report prepared by the NRFC.[1] The Status of Fund Authorization Report reflects a summary of all charges lodged against the fleet commanders' and type commanders' operating budgets, and is forwarded to the primary afloat funds administrator, the CNO.

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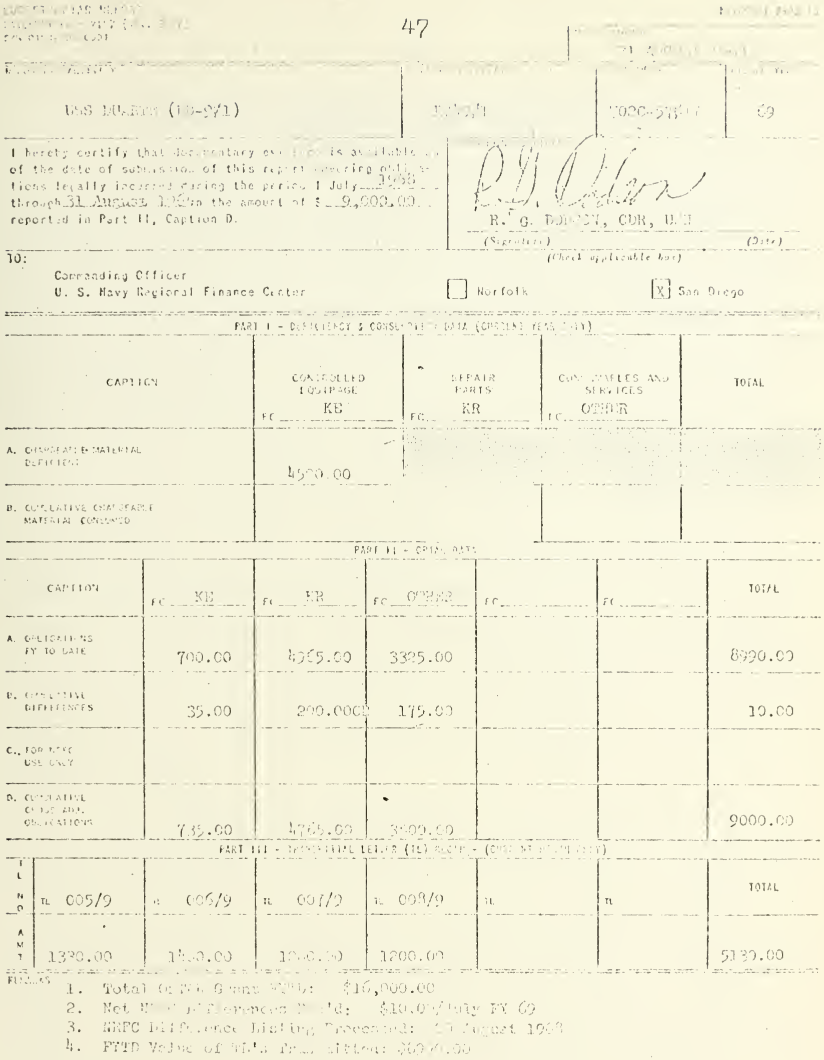
[1] _Financial Management in the Navy_, p. 163.



[illegible]

USS [illegible] ([illegible]-971)	[illegible]	70[illegible]-5[illegible]	69

I hereby certify that documentary evidence is available as of the date of submission of this report covering obligations legally incurred during the period 1 July 1968 through 31 August 1968 in the amount of $ 9,000.00 reported in Part II, Caption D.

R. G. D[illegible], CDR, USN
(Signature) (Date)

TO:
Commanding Officer
U. S. Navy Regional Finance Center

(Check applicable box)
☐ Norfolk ☒ San Diego

PART I - DEFICIENCY & CONSUMPTION DATA (CURRENT YEAR ONLY)

CAPTION	CONTROLLED EQUIPAGE FC KE	REPAIR PARTS FC KR	CONSUMABLES AND SERVICES FC OTHER	TOTAL
A. CHARGEABLE MATERIAL DEFICIENT	4500.00			
B. CUMULATIVE CHARGEABLE MATERIAL CONSUMED				

PART II - OPTAR DATA

CAPTION	FC KE	FC KR	FC OTHER	FC	FC	TOTAL
A. OBLIGATIONS FY TO DATE	700.00	4965.00	3325.00			8990.00
B. CUMULATIVE DIFFERENCES	35.00	200.00CR	175.00			10.00
C. FOR NRFC USE ONLY						
D. CUMULATIVE GROSS ADJ. OBLIGATIONS	735.00	4765.00	3500.00			9000.00

PART III - TRANSMITTAL LETTER (TL) RECORD - (CURRENT MONTH ONLY)

TL NO	TL 005/9	TL 006/9	TL 007/9	TL 008/9	TL	TL	TOTAL
AMT	1330.00	1[illegible].00	1[illegible].00	1200.00			5130.00

REMARKS
1. Total OPTAR Grant FYTD: $16,000.00
2. Net NRFC Differences Rec'd: $10.00/July FY 69
3. NRFC Difference Listing Processed: 15 August 1968
4. FYTD Value of TL's Transmitted: $[illegible].00

Fig. 8.--Illustration of the Monthly Budget/OPTAR Report

Source: U.S., Department of the Navy, U.S. Navy Supply Corps School, Supply Management Problems, Part II (6ND-NSCS-P-14, Rev. Nov. 1968).

Control Features of the Afloat OPTAR Accounting System

In the afloat forces, basic financial control is exercised through the Requisition/OPTAR Log. If the postings made to this log are accurate, and if it is kept up to date, one glance reveals the balance of funds available to finance the operation of the ship during the remainder of the accounting period. Simple calculations from this same record will produce the amount that the ship has spent for each major category of material (i.e., repair parts, equipage, and so on). Therefore, since the Requisition/OPTAR Log furnishes the most readily available source of financial information, the commanding officer and supply officer must almost exclusively rely on it to prevent over-expenditures, and in planning the optimum use of their limited funds.

To insure the mathematical accuracy of the Requisition/OPTAR Log, routine footing, cross-footing, and balancing should be performed frequently. The OPTAR accounting procedures require that the log be balanced at least each Friday and at the end of each month. These dates coincide with the submission of the transmittal of the requisition accounting copies and the preparation of the monthly Budget/OPTAR Report.

If the value of the weekly transmittals of accounting copies is in agreement with the value of the requisitions recorded in the Requisition/OPTAR Log for

the week, the ship can be reasonably sure that all requisitions were properly recorded on both records. Therefore, the ship's management is not likely to be misconceived by a mathematical error as to the available balance of its funds, which could lead to an imprudently timed spending decision.

The monthly accounting reports received by the ship from the NRFC can be a valuable aid in improving the managerial control over its funds. As pointed out above, and displayed in Figures 6 and 7 (pages 44 and 45), these reports reflect such weaknesses in the ship's accounting procedures as incorrect pricing of requisitions, failure to submit accounting copies of requisitions, and incorrect fund codes or stock numbers. Any of these errors can cause inaccuracies in the ship's OPTAR Log. Therefore, the responsible managers must be observant in detecting the existence of such procedural weaknesses as those mentioned above, and initiate corrective action to preserve the control features of the system and the financial integrity of the accounting records.

The Interrelationship of Financial and Material Management

The broad area of supply management aboard Navy ships consists of two separate but highly interrelated functions--financial management and material management. The interrelationship of these two management areas can

best be established on this basis: funds are needed to procure material; quantities of material are necessary to support the daily operations of the ship; and, consequently, the quantities of needed material determine the amount of funds necessary to procure them.

A large segment of the preceding discussion has been directed toward the procedures employed in the management of the funds made available to finance shipboard operations. In this section, a discussion will be provided on how ships determine their material requirements, and, consequently, what criteria are used to direct funds to their most efficient use.

Navy ships are required to remain deployed for protracted periods of time without the benefit of logistical support. The requirements of fuel oil, subsistence items, office supplies, and certain non-equipment-related consumable items needed to sustain the operations during these periods of deployment can be reasonably well predicted. However, it is most difficult to predict what, if any, equipment will fail, and therefore what repair parts should be carried in inventory. The discussion that follows concerns the interrelationship of financial and material management in the repair parts spectrum.

The range of inventory carried by Navy ships varies in size from 16,000 line items for small combatants upward to 60,000 items for the larger aircraft carriers. Of this

number, approximately 90 percent of the line items, with 80 percent of the money value, fall into the repair parts classification.[1]

When a ship is commissioned, or receives a major conversion or alteration, initial repair parts inventories are provided from special "outfitting" funds. However, once a ship begins operating, any items procured as inventory replacements, or as expansions in inventory range or depth, must be funded, in all but a few cases, from the ship's OPTAR.

Basic inventory levels are established by an allowance list produced for each ship which has been tailored to support the equipments installed on that ship. This allowance list, known as the Coordinated Shipboard Allowance List, contains a section in which each allowed repair part is listed in stock number sequence, with the recommended quantity to be stocked listed opposite the stock number. However, it must be emphasized that the allowances set forth in this publication are only guidelines which may be exceeded, based on experienced high usage, or reduced, based on funding limitations or no usage.

A complicating problem is, however, that there has been a very serious shortage of funds available to procure repair parts, and yet no specific guidelines to assist the

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[1] J. W. Cartee, "Supply Management" (unpublished professional paper, Navy Department, Bureau of Supplies and Accounts, 1960), pp. 15-21.

ship's supply officer in determining just what items he should buy with the money available. As a result, most ships had hundreds of inventory items with deficiencies between the allowance quantities and the on-hand balances, a condition which does not lend support to the doctrine of self-supply support for deployed ships.

In 1965, to help improve afloat supply support and at the same time provide a basis for the more effective utilization of OPTAR funds, the Procedures for Inventory Control Afloat (PICA) program was instituted.

PICA reemphasized the importance of the day-to-day financial and material management responsibilities of the ship's supply officer, and prescribed inventory management procedures to assist him in carrying out these tasks.

While granting some latitude to the type commanders in the administration of the detailed procedures on the different types of ships, PICA does furnish some very specific decision rules for determining what items would be stocked, how many (quantity) of each item would be stocked, at what stock level each item would be reordered, and what quantity should be ordered.

The PICA procedures also provide for centralized shipboard inventory management, by requiring that all primary repair parts be placed in storerooms under the custody and control of the supply officer. For each item allowed to be carried in inventory, a stock record card

is maintained which contains a great many data elements, among which are included:

1. Stock number.
2. Item nomenclature.
3. Unit of issue.
4. Unit price.
5. Storage location.
6. High limit, low limit, and allowance quantity.
7. On-hand/on-order balances.
8. Historical data on receipts and issues.[1]

Therefore, decisions on how funds are to be spent for procurement of material are based on the historical usage data contained on the stock record cards and the decision rules for stocking.

The decision rules for stocking are formulated in such a manner that the primary emphasis of the shipboard inventory management effort is focused on those items of inventory that experience repetitive demands. This procedure allows a ship to stock these "fast movers" in a quantity based on actual usage, recomputed at regular intervals, rather than at the allowance list quantities mentioned above. Items which do not meet the criteria of a "fast mover" receive less management attention and are replaced in inventory stock on a "one issued, one replaced" basis.

Repair parts items required for maintenance actions, which are not allowed to be carried in inventory as indicated

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[1] U.S., Department of the Navy, Navy Supply Systems Command, Procedures for Inventory Control Afloat for Non-mechanized Ships with Supply Corps Officers, NAVSUP NOTE 4406, May 31, 1968, pp. 4-14 - 4-16.

by the allowance list, are ordered for direct turnover to the maintenance technician. However, usage data on these items is accumulated, and if any such item experiences enough usage to warrant stocking, a quantity is procured and placed in the ship's storeroom.

The PICA system of inventory management has provided three distinct improvements in ships' overall management effort:

1. It has changed the computation of inventory item quantities from the arbitrary "rule-of-thumb" to a scientific basis.

2. It has provided the means for more effective use of OPTAR funds by having ships buy the items that they use most often and/or need the most urgently.

3. It records accurately the cost and quantity of the material actually consumed (used) by each ship, therefore establishing a more logical inventory stocking criteria and a better basis for annual budget development.

In connection with the collection of data mentioned in (3) above, PICA procedures require that all issues of material aboard ship be documented on a Single Line Item Consumption/Management Document, as illustrated in Figure 9.

This issue document not only serves to substantiate entries made in the ship's inventory records, but in addition, serves as basic input source data for a material

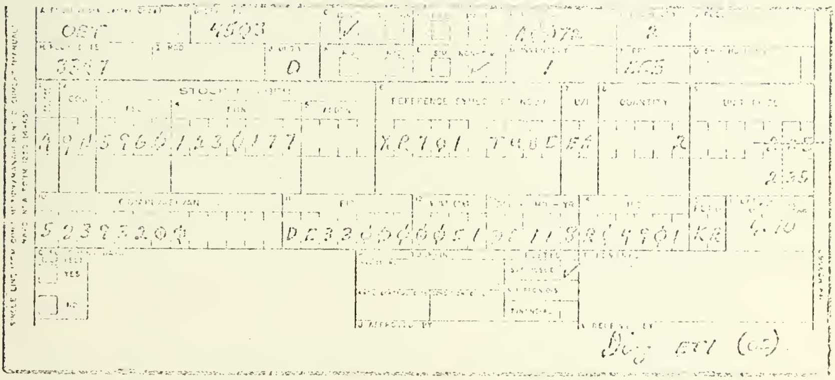

Fig. 9.--Illustration of the Single Line Item Consumption/Management Document

Source: U.S., Department of the Navy, U.S. Navy Supply Corps School, Supply Management Problems, Part III (6ND-NSCS-P-19, Rev. July 1968).

support/maintenance improvement program. In connection with this latter purpose, the ship forwards a copy of the document to a central data collection center at the type commander headquarters. Utilizing data processing equipment, the type commander produces a number of printed reports which reflect the effectiveness of the ship's inventory management function. Additional statistics are calculated on the types and quantities of material used by each ship which serve as a means for updating and improving shipboard allowance lists.

Closely aligned with the PICA efforts to update and purify shipboard allowance lists is another supply management improvement program known as the Supply Operations Assistance Program (SOAP). The primary objective of this program is to improve the ship's material readiness by raising the repair parts inventories to the level prescribed by appropriate authority and to verify the validity of allowance lists.[1]

The SOAP procedure normally takes place at the time of a shipyard overhaul, and involves not only the complete physical count of all ship inventories, but also a re-verification of the equipment installed aboard the ship. Based on the results of this inventory and verification, the ship receives a new allowance list, as well as separate

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[1] U.S., Department of the Navy, Navy Supply Corps School, Athens, Georgia, Supply Management Problems, Part III, p. 14-11.

lists of all repair part excesses and shortages.

Many of the identified excesses can be returned to the supply system for credit, and the credits used to procure shortages. Excess items for which credit cannot be granted are placed into a central pool and are used to fill the shortages of other ships without charge to the receiving ship's OPTAR. This procedure of identifying shortages and excesses, and providing a centrally coordinated program for swapping them, has been highly successful and has resulted in millions of dollars in savings to the Navy.

Repair part shortages which cannot be filled as described above, or which cannot be funded as an initial issue to support newly installed equipment, must be funded from fleet operating funds, normally the ship's OPTAR.

As mentioned at the beginning of this section, even though shipboard financial and material management are looked upon as separate managerial disciplines, they are closely interrelated. As long as material requirements must be purchased with operating funds, the effectiveness of the material management practices and stocking procedures will greatly influence the efficiency of funds utilization.

The Resources Management System and Its Impact on the Present and Future Afloat Financial Management

In Chapter II, mention was made of the Resources Management System (RMS) concept as a system which was designed to function within the Planning, Programming and

Budgeting System of the Department of Defense. The objective of this system is to promote better management within the defense establishment by providing managers with an improved means of obtaining and controlling resources required to accomplish their missions.

Under the afloat organizational structure that existed prior to 1966, this type of total resources management could not be accomplished. Therefore, RMS was not only one of the major reasons for effecting a reorganization, but in addition dictated the manner in which many of the new lines of authority should be structured.

With this change in organization, the operational control and funding responsibilities for afloat units were placed in the same chain of command. Therefore, each major command receives its total financial resources from its organizational superior in the form of an operating budget, and this operating budget becomes the primary means through which RMS functions to manage fleet resources.[1]

Under RMS, and its ancillary subsystem Project PRIME, accounting systems design and informational flow have been drastically improved. This means that managers are getting better and more timely financial and material management information on which to base their decisions.

The functioning of the Resources Management System is depicted in Figure 10, and its tangible effects on the

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[1] Financial Management in the Navy, p. 35.

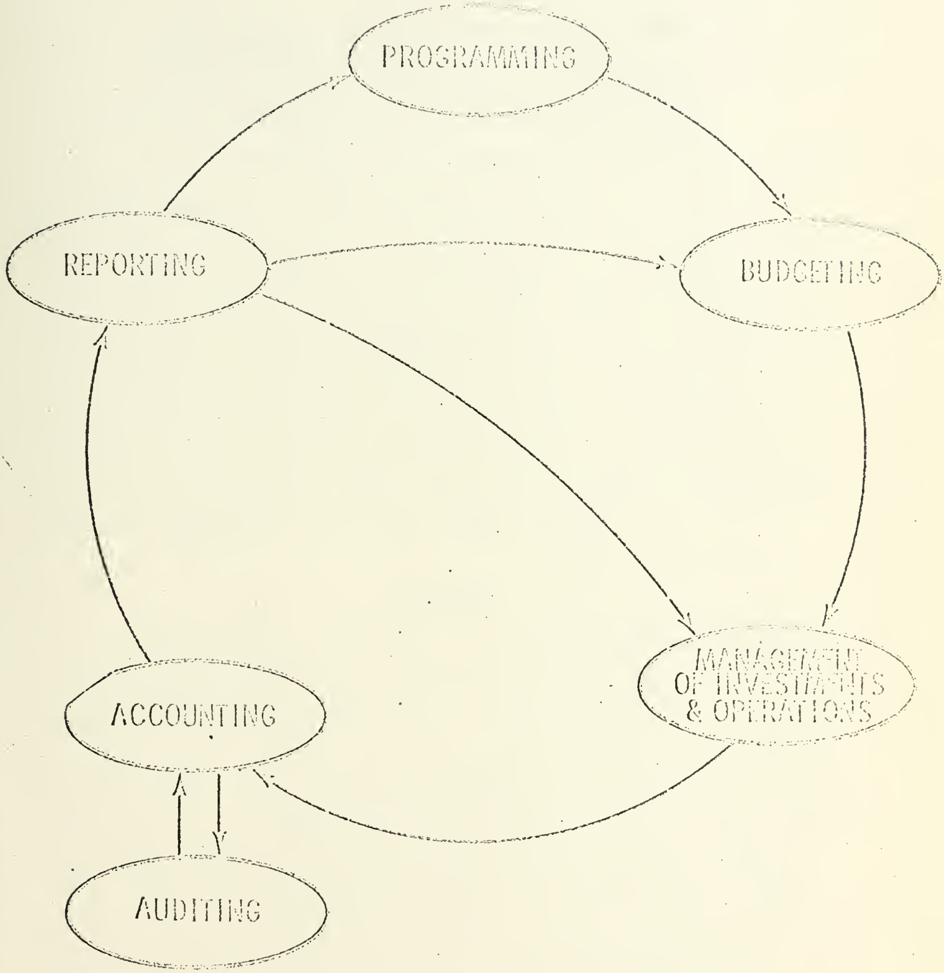

Fig. 10.--Illustration of the Functioning of the Resources Management System

Source: U.S., Department of Defense, Office of the Assistant Secretary of Defense (Comptroller), A Primer on Project PRIME, April, 1967.

afloat financial management system may be summarized as follows:

1. More control by the operational manager over type and mix of resources applied.
2. More control over and better substantiation for the budgetary formulation process.
3. More control over operational methodology.

At the present time, efforts are underway to refine the RMS program to make it more effective in producing a total resources approach to management. Therefore, it would seem that RMS will provide the foundation for the future afloat financial management system to become more scientifically oriented, and with the accounting element of that system becoming better equipped to provide more detailed cost analyses and improved financial control--all with the expenditure of less human effort.

Summary

The afloat accounting system is largely designed to accommodate the reporting requirements of the Defense Department and those imposed by appropriation law. Appropriation law, with its strong emphasis on financial control, often serves to hamper systems design and in addition places tremendous workload requirements on shipboard personnel.

In some cases, the lack of expertise and understaffing at the shipboard level causes inaccurate and untimely reporting, and consequently less than optimum financial decision-making.

Shipboard financial management is accomplished primarily through the control of the ship's operating funds--the OPTAR. These funds are used to finance the day-to-day material requirements of the ship, which largely consist of repair parts and equipment related consumables.

The material management of these requirements is tailored toward providing the ship with maximum endurance to sustain its operations through lengthy periods of deployment which are geographically remote to ashore supply facilities. Therefore, the inventory levels and stocking policies necessary to provide this long endurance dictate the use of a large portion of the OPTAR funds.

As long as ships are required to procure the majority of their material requirements with OPTAR funds, it will be virtually impossible to dissolve the interrelationship of financial and material management. Consequently, if policies relative to material management are ineffective, financial management will be burdened with many of the same inefficiencies.

The Resources Management System has vastly improved the afloat forces' ability to appraise the effectiveness of its material and financial management efforts. However, endeavors must continue to improve the accounting system and all related afloat management information systems to enable the fleet to better substantiate its budget requests and to achieve optimum use of scarce resources.

CHAPTER IV

DECISION-MAKING IN THE AFLOAT FORCES: METHODOLOGY AND PROBLEM AREAS

Decision-making--the actual selection from among alternatives of a course of action--is at the core of planning. Consequently, it is really the central job of a manager because he must constantly choose or decide what is to be done, who is to do it, when, where, and often how.[1]

The first step in the rational decision-making process is normally the development of alternatives, after which the alternatives must be evaluated. Then, based on this evaluation, a selection must be made of the alternative that will best accomplish the stated objective. This process is valid for private industry and the military alike. However, it should be understood that the type and range of decisions made in afloat financial management vary somewhat from those made in the financial management of a private enterprise. This is primarily because of differences in the size, nature, and mission of the organization, as well as the absence of the profit motive in the military.

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[1] Harold Koontz and Cyril O'Donnell, Principles of Management: An Analysis of Managerial Functions (New York: McGraw-Hill Book Co., 1968), p. 152.

Furthermore, the afloat financial manager is greatly restricted by centralized procedures, decision rules, and the requirements of statutory law.

Elements of the Shipboard Management Information System and How They Provide the Basis for Systematic and Rational Decision-Making

Information is vital to good decisions. Information is also necessary to enable management to plan, execute, and control the accomplishment of its objectives. Therefore, a good management information system should provide the necessary intelligence, on a timely basis, and be specifically designed to accomplish these purposes.[1]

Ordinarily, a management information system is a total system in the sense that it embraces all aspects of the organization's operations. This is so because an important management function is to insure that all parts of the operation are in balance with one another; and in order to examine balance, management needs information about each of its parts.[2]

Chapter III explained the interrelationship of financial and material management, and therefore pointed

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[1] J. W. Konvolinka and H. G. Trentin, "Management Information Systems," in Management Systems, ed. by Peter P. Schoderbek (New York: John Wiley and Sons, Inc., 1967), p. 171.

[2] Anthony, Dearden, and Vancil, Management Control Systems, p. 3.

toward a balance which must be achieved between the two. This chapter will discuss further aspects of the two systems, evaluate them, and show how a balance must be achieved in order to produce rational decision-making and effective utilization of funds.

Chapter I (on page 15) describes the duties of the ship's commanding officer and supply officer in executing their resources management responsibilities. The management information system, which provides them with the information necessary to manage effectively the men, money, and material assigned to their organization consists of the following primary elements: OPTAR Accounting; Departmental Budgets; Budget/OPTAR Report; and the Afloat Consumption Cost and Effectiveness Surveillance System (ACCESS).

OPTAR Accounting

In the area of financial management, the most basic of the information systems is OPTAR accounting. Discussion in Chapter III explained the basic functioning of this system; however, very little discussion was devoted to the uses of the management information it provides.

Figure 5 (page 41) illustrates the basic shipboard financial management information document--the Requisition/ OPTAR Log. Provided the entries are recorded accurately, its mathematical accuracy is verified weekly and monthly as required, and the NRFC detailed listings (Figures 6 and

7, pages 44 and 45) are reconciled in a timely fashion, this document will reflect a relatively accurate status of the ship's funds. However, this may not tell the shipboard financial manager everything he wants and needs to know about overall spending patterns. Therefore, this document should be supplemented by an Annual Spending Plan chart, as illustrated in Figure 11.

Prior to the beginning of each fiscal year, the type commanders require all ships to submit their total funding requirements detailed into quarterly increments. Based on the ship's requests and the amount of spending authority granted by Congress, the type commanders issue the ships an Annual Planning Figure (APF), again subdivided into quarterly sums. This APF notifies the ship of what it can expect to receive as quarterly OPTAR grants, and therefore establishes the estimated rate at which the ship should spend. The chart portrays the actual funds spent, measured against planned, and therefore indicates the general trend. Utilizing this information, along with supplemental data on upcoming operations, the shipboard financial manager can initiate the proper action to control spending and therefore keep within the funding limitation; or, if necessary, submit an appropriately substantiated request for a funds augmentation.

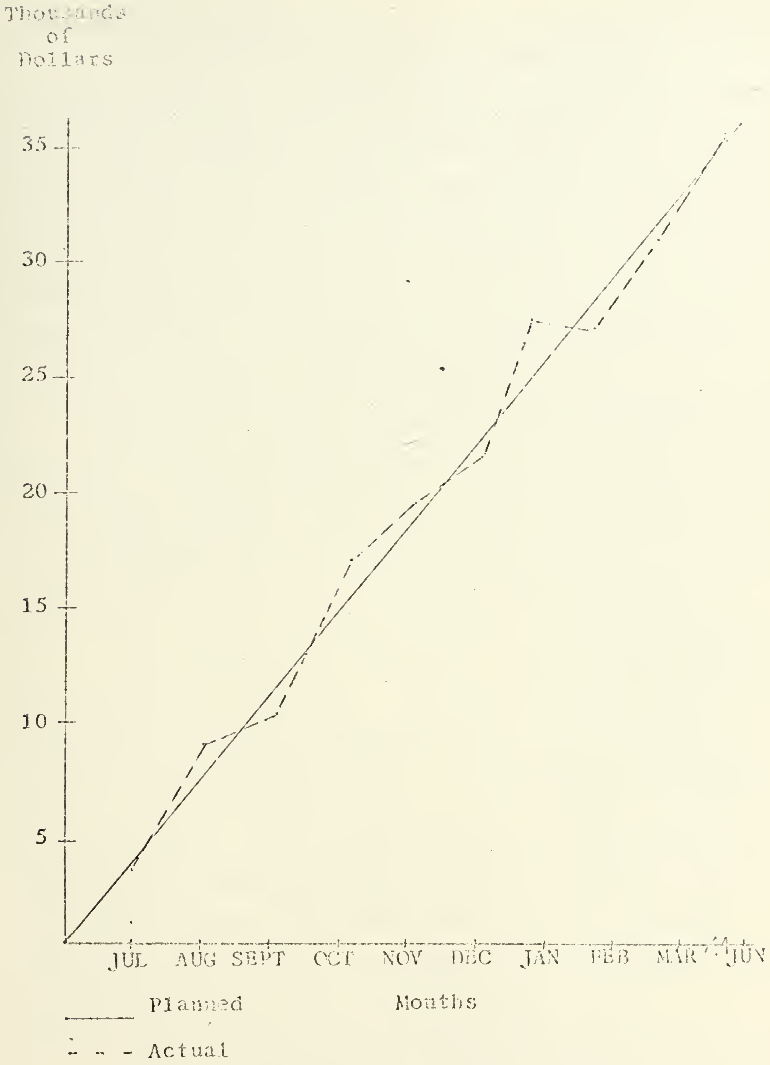

Fig. 11.--Illustration of an Annual
Spending Plan Chart

Departmental Budget

The use of a departmental budget aboard ship is an optional procedure. However, when encompassed as a part of the overall financial information system, it provides useful data to the commanding officer, and serves as a constant reminder to the operating department heads (weapons, engineering, operations, and others) as to the scarcity of funds and their responsibility to make efficient use of the portion allocated to their department.

In practicality, departmental budgets should only be used to control departmental spending for consumable items such as paper, pencils, rags, paint, and so on. This is because department heads can exercise little control over spare parts used to repair inoperative equipment.

A recommended format for departmental budgets is illustrated in Figure 12. The normal procedure for its operation is for the commanding officer to designate a portion of the OPTAR grant to fund shipboard consumables. This portion is then divided among the ship's departments. Each time a department uses consumable material, the cost is lodged against the using department's allocation. If the department exceeds its budget, the department head must justify the overrun to the commanding officer.

The report should be prepared weekly by the supply department, and a copy submitted to the commanding officer and all department heads.

[illegible]

Subj: [illegible] 10/1/70 [illegible]

1. [illegible]

	Budget Amt.	Bal. B. F.	Used this Period	Bal. C. F.
WEPS	$ 1,[illegible].00	$ 1,300.00	$ 211.3[illegible]	$ [illegible]
ENG	900.00	900.00	196.21	[illegible]
OPS	700.00	700.00	193.10	[illegible]
SUP	350.00	350.00	82.00	[illegible]
Total:	$ 3,250.00	$ 3,250 00	$ 682.57*	$ 2,[illegible]*

2. Ship's Budget

	Budget Amt.	Bal. B. F.	Used this Period	Bal. C. F.
Repair Parts	$ 11,750.00	$ 11,750.00	$ 1,349.57	$ 10,400.43
Consumables	3,250.00	3,250.00	613.47*	2,636.53*
Equipage	500.00	500.00	112.00	388.00
Contingency	1,500.00	1,500.00	----	1,500.00
Total:	$ 17,000.000	$ 17,000.00	$ 2,075.04	$ 14,924.96

*Not normally the same. Issues from stock are included in Section 1 and stock reorders in Section 2.

Copy to:
WEPS
ENG
OPS
File

Fig. 12.--Illustration of a Shipboard Departmental Budget Report

Source: U.S., Department of the Navy, Commander, Naval Supply Systems Command, Procedures for Inventory Control Afloat, NAVSUP NOTICE 4406, May 1968.

Part two of this report consists of a summary of the ship's total spending, broken down into the major material categories of equipage, repair parts, and consumables. This provides the commanding officer with an overall picture of what portion of the ship's funds is being expended for each category. If the cost of one particular category seems out of line, the commanding officer can initiate an investigation to determine the cause. When the facts are analyzed, it could be revealed that one particular piece of equipment has become costly to maintain and possibly, therefore, should be replaced. The commanding officer can develop cost analyses to assist his seniors in the chain of command in making a decision on whether it is more economically feasible to keep the old equipment or replace it.

The Budget/OPTAR Report

The requirement for the Budget/OPTAR Report and the procedures governing its preparation were explained in Chapter III, and a copy of the prepared report is illustrated in Figure 8 (page 47). Even though this report is prepared for the NRFC and type commander, the ship should carefully analyze the information that it contains. Not only does it provide data on the total OPTAR grant and the amount of cumulative spending, but it also shows the total value of material and services consumed (used) by the ship.

At the present time, afloat funding is based primarily on the previous year's rate of consumption, adjusted for predicted changes in the operational pattern. Therefore, it is extremely important that the ship be able to account for significant differences between its rate of spending and its rate of usage in order to adequately justify its budget requests.[1] Figure 13 illustrates a supplemental informational chart that will assist the ship in isolating periods in which significant differences occurred between spending and consumption. Therefore, after a thorough examination has been conducted of the period's transactions to uncover the underlying causes, an immediate change can be made which will bring the two rates into closer agreement.

Afloat Consumption Cost and Effectiveness Surveillance System

The Afloat Consumption Cost and Effectiveness Surveillance System (ACCESS), implemented in 1966, is the most comprehensive and aggressive of all the financial and material management information systems. The system utilizes automatic data processing equipment to collect spending and consumption data generated in the course of day-to-day supply afloat operations, and thereafter furnishes the afloat managers with printed summary reports.

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[1] U.S., Department of the Navy, Office of the Chief of Naval Operations, Joint Atlantic and Pacific Fleet Afloat Consumption Cost and Effectiveness Surveillance System Manual, OPNAV 41P2, June, 1968, chap. v.

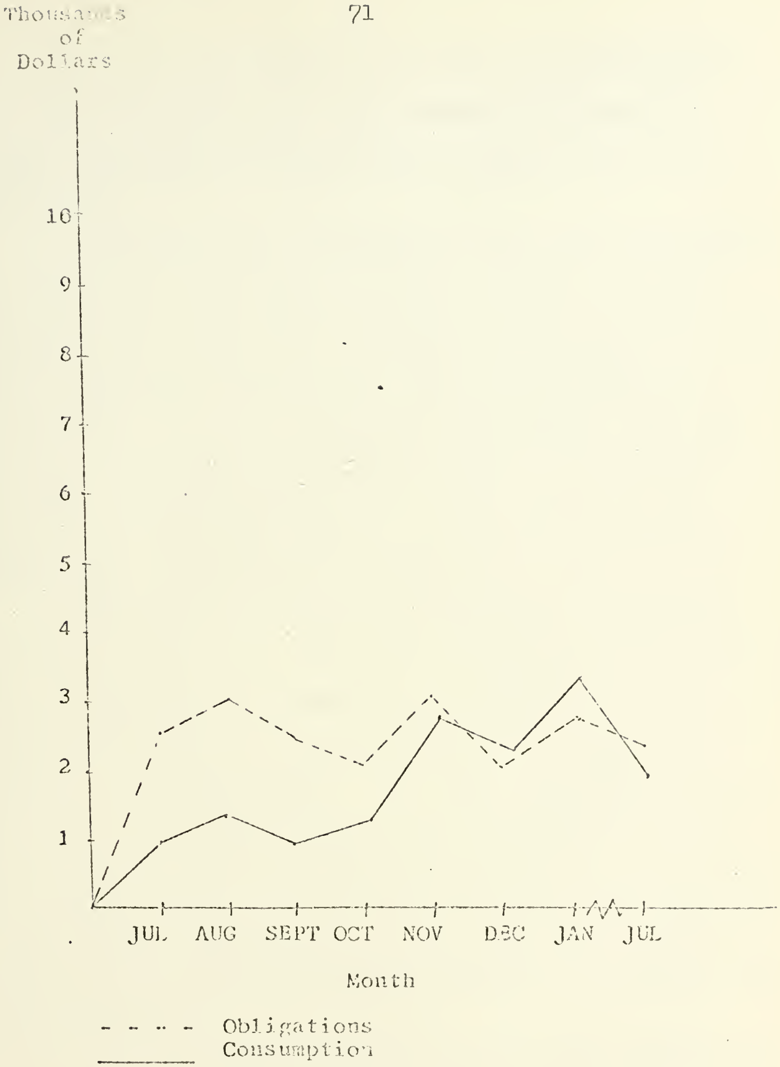

Fig. 13.--Illustration of Obligations versus Consumption Chart

These data are collected primarily from the Budget/OPTAR Report and the Single Line Item Consumption/Management Document depicted in Figures 8 and 9 (pages 47 and 55), respectively.

ACCESS provides information to the fleet commanders, type commanders, and ships on supply readiness and fund utilization by categorized reporting of the composition and level of shipboard inventories, the value of material consumption, the value of material deficiencies, and, in addition, comparative operational readiness statistics among ships of the same type.[1] An illustration of the ACCESS report is contained in Figure 14.

Timely and conscientious analysis of the ACCESS report can provide each ship with essential financial and material management information for improving decision-making in all areas of supply readiness, funding, and shipboard inventory control. Its chief advantage lies in the fact that the data are collected, summarized, and to some extent analyzed, not through the time-consuming efforts of the shipboard personnel, but by a centralized computer center at the type commander headquarters, from source data already available.

The ship can very easily take the data provided by the ACCESS report, expand it into historical trends, subject it to further analysis, and many times locate the

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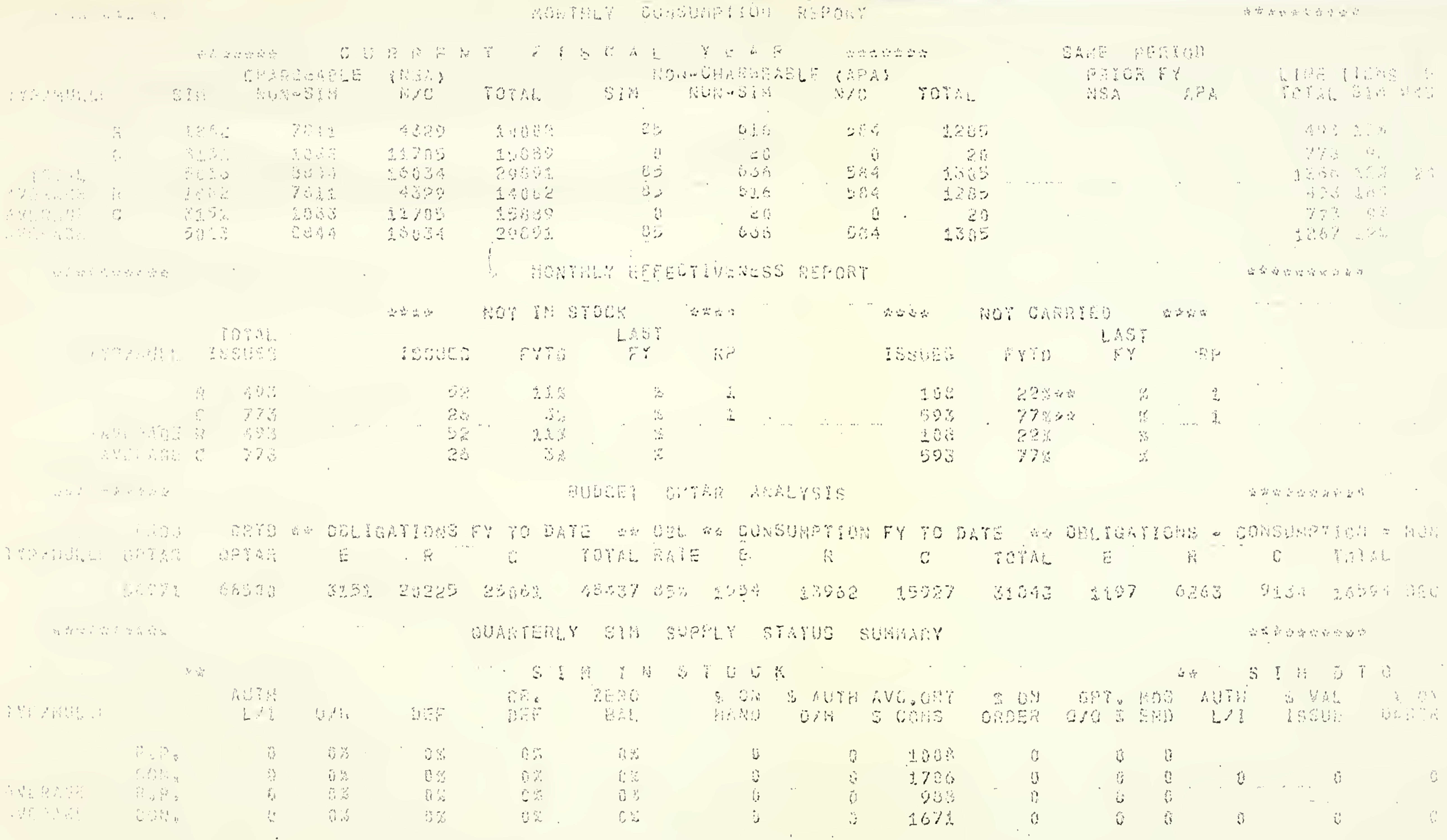
[1] *Ibid.*, p. 1-1.



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                                   MONTHLY  CONSUMPTION  REPORT                                                 **********

            *******       C U R R E N T   F I S C A L   Y E A R     *******                SAME  PERIOD
               CHARGEABLE  (NSA)                          NON-CHARGEABLE (APA)                 PRIOR FY           LINE ITEMS  [illegible]
TYPE/HULL      SIM    NON-SIM     N/C      TOTAL       SIM     NON-SIM      N/C      TOTAL        NSA      APA      TOTAL SIM NSO

          R    1262    7011       4329     14082        85       616        584      1285                           493 1[illegible]
          C    5151    1033      11705     15089         0        20          0        26                           773 9.
TOTAL          5015    9044      16034     29891        85       636        584      1305                          1266 [illegible] 2[illegible]
AVERAGE   R    1082    7611       4329     14062        85       516        584      1285                           493 1[illegible]
AVERAGE   C    2152    1033      11705     15889         0        20          0        20                           773 93
AVERAGE        5013    8844      16034     29891        85       606        584      1305                          1267 1[illegible]

**********                         MONTHLY  EFFECTIVENESS  REPORT                                               **********

                            ****    NOT IN STOCK     ****                 ****    NOT CARRIED     ****
            TOTAL                                  LAST                                          LAST
TYPE/HULL   ISSUES             ISSUED     FYTD      FY        RP          ISSUES     FYTD         FY       RP

          R   493                  52      11%       %         1            108      22%**         %        1
          C   773                  28       3%       %         1            593      77%**         %        1
AVERAGE   R   493                  52      11%       %                      108      22%           %
AVERAGE   C   773                  28       3%       %                      593      77%           %

**********                           BUDGET  OPTAR  ANALYSIS                                                    **********

          [illegible]   QRTR ** OBLIGATIONS FY TO DATE  ** OBL ** CONSUMPTION FY TO DATE  ** OBLIGATIONS - CONSUMPTION = NON
TYPE/HULL  OPTAR   OPTAR     E       R        C      TOTAL RATE    E        R       C       TOTAL      E       R       C      TOTAL

           50271   66530   3151   20225   22061   45437 65%   1954    13962   15927    31043    1197    6263    9134   16594 [illegible]

**********                        QUARTERLY  SIM  SUPPLY  STATUS  SUMMARY                                       **********

               **                          S I M   I N   S T O C K                          **      S I M   D T O
                AUTH                         CR.      ZERO          $ ON   $ AUTH  AVG.QRT    $ ON    QPT.  MOS    AUTH     $ VAL       $ ON
TYPE/HULL        L/I     O/H       DEF       DEF      BAL           HAND     O/H    $ CONS   ORDER    O/O $  END    L/I     ISSUE       ORDER

          R.P.     0      0%        0%        0%       0%              0       0     1008       0       0     0
          CON.     0      0%        0%        0%       0%              0       0     1786       0       0     0      0         0          0
AVERAGE   R.P.     0      0%        0%        0%       0%              0       0      988       0       0     0
AVERAGE   CON.     0      0%        0%        0%       0%              0       0     1671       0       0     0      0         0          0
```

Fig. 14.--Illustration of an Afloat Consumption Cost and Effectiveness Surveillance System (ACCESS) Report

NOTE: This is an actual ship's ACCESS report, which is used in this paper for illustration purposes only. Therefore, the ship's name has been kept anonymous.

source of management problem areas that would otherwise remain undetected. Therefore, the system provides not only the data necessary to help identify and isolate managerial problems, but also the statistics and information necessary to solve many of these problems, formulate rational decisions, and improve the quality of the overall supply management operation.

Appraisal of Decision-Making at the Shipboard Level: An Analysis of Current Problems

Much effort has been expended at all organizational levels within the defense establishment to improve the quality of decision-making. Much of this emphasis has centered on improving the quality of management through advance training, but at the same time considerable effort has been expended in improving the quality, quantity, and timeliness of the information on which the decisions are based. Significant discussion was provided in the earlier sections of this paper to show the results of this trend in the budgetary system of the Department of Defense, the Navy reorganization, and the changes that have occurred in afloat management systems. Progress has indeed been made, but the system is still far from faultless. Therefore, the remainder of this section will be devoted to current problem areas and some of the means available to the shipboard supply officer to improve his management efforts within the context of the present system design.

An Analysis of Current Problems[1]

The Navy personnel assignment policies dictate the periodic rotation of its officers and enlisted personnel among its many commands. Therefore, shipboard personnel change frequently, and under current personnel ceiling restrictions, staffing often falls below the optimum number necessary to perform the workload requirements effectively.

A related problem is the training, particularly of the enlisted personnel, that must be provided to qualify these men to perform duty assignments both ashore and afloat. Since the operating conditions are different for the shore establishment than for the afloat forces, there are obvious differences in the management systems and procedures of the two. Time does not always permit formal schooling, and thus much is left to be learned from on-the-job training. Training is further complicated by inherent differences in the operational tasks of the various types of ships.

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[1] Much of the information and material presented in this section was developed from study and research conducted from June 1967 through April 1969, during which time this author served as an Instructor of Supply Management at the Navy Supply Corps School, Athens, Georgia. This information comes primarily from participation in official conferences established for the purpose of revising afloat financial and material management procedures; from interviews with ship supply officers, type commander staff personnel, and officials of the afloat division offices in the Naval Supply Systems Command and the Comptroller of the Navy; and from a two-year period of reviewing a large sampling of shipboard annual supply inspection reports.

As indicated in Chapter III, the type commanders are given a certain amount of leeway in converting the basic procedures of the system to fit their individual patterns of operation. Consequently, many procedural peculiarities are prominent within each type command, not to mention the differences that exist between the two fleets. Therefore, personnel transferred between ships of a different type command may find themselves faced with having to work under procedures significantly different from those of their previous command. For these personnel to become effective in the performance of their jobs, the new command must institute a retraining program, which takes valuable time away from the productive work effort.

Beyond these personnel difficulties, there is the problem of actually carrying out the procedural requirements of the afloat financial and material management systems. These will be addressed in a categorical fashion as follows:

OPTAR accounting.--A discussion of the basic procedures of the OPTAR accounting has been provided above. As pointed out in that discussion, the responsibility for the preparation of practically all source documents rests with the individual ship. If the ship commits errors in document preparation, these errors are perpetuated in the final output. Therefore, failure on the ship's part to accurately record accounting data, prices, stock numbers, and the like

results in costs being charged to the incorrect fund, the wrong material being supplied, and/or impairment in the accuracy of the financial control records.

Various studies have been underway for over five years to provide recommendations for improving and simplifying fleet accounting procedures and at the same time to find some means to remove some of the workload from the ships.[1] Of particular significance in these studies has been the problem of the ships in reconciling the detailed accounting listings produced by the NRFC's (see Figures 6 and 7, pages 44 and 45). Some of these reconciliation problems, of course, are the fault of the ship in submitting inaccurate source documents. Others result from errors on the part of the NRFC's; and some are generated by supply activities in their billing process.

In one recent review of the problem, the Navy Audit Service found that approximately 5 percent of the errors that produced unmatched expenditures resulted from keypunch errors on the part of the NRFC's.[2] Some of these could no doubt have been avoided by a more intensive verification effort. However, it is entirely possible that a more significant number are the result of the inherent

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[1] These studies began with the U.S., Department of the Navy, Navy Logistics Support Improvement Plan, NAVLOGSIP Objective 6 (Dollar Accounting), October 6, 1965.

[2] U.S., Department of the Navy, Office of the Comptroller, U.S. Navy Audit Service Report, Review of Accounting for Fleet Commands and Units, Report No. S00239, May 23, 1969, p. 39.

inaccuracies of a large and complex system which produces over 700,000 accounting documents per month.[1]

Nevertheless, the effectiveness of the system is minimized by the large volume and overall value of unmatched, erroneous transactions; and the task of performing their reconciliation, as mentioned above, rests heavily on the ship.

The ship's role in reconciling these detailed accounting listings and in supplying the NRFC with the information necessary to correct the errors is particularly burdensome and time consuming. In the case of transactions on the Filled Order/Expenditure/Difference List (Figure 6, page 44), the procedure requires that the ship's personnel, for all transactions reflecting a dollar difference of $10 or more, compare the entries on the accounting report with their source records to determine the cause of the difference. In the case of those differences which reflect errors caused by the NRFC or supply activities, the ship must annotate the listings and return them to the NRFC for correction of the official accounting records. All entries on the Unmatched or Unfilled Order Lists (Figure 7, page 45), regardless of monetary value, must be investigated and the findings communicated to the NRFC. The end result is that many ships consider the time required in this effort to be too costly for the benefit received, and, consequently,

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[1] _Ibid._, p. 72.

many errors are never reconciled because shipboard personnel are either unwilling or unable to expend the time required to unravel the surrounding circumstances.

Failure to properly reconcile these accounting reports, for whatever cause, devoids the system of one of its vital control features. This is so because the law requires that all expenditures unmatched at the end of three years are automatically charged against the type commander's operating budget. In many cases, the type commander, unaware of the monetary value of these unmatched transactions, is placed in the embarrassing position of not having sufficient funds to cover these unmatched charges. Such experiences have taught the type commanders not to rely upon the official accounting reports, and to protect themselves they have resorted to duplicate record-keeping efforts and tighter controls, which increases both workload and costs.

Afloat Consumption Cost and Effectiveness Surveillance System (ACCESS).--As discussed in Chapter III, ACCESS requires that the ship prepare a Single Line Item Consumption/Management Document (Figure 9, page 55) for each item of material issued to end use aboard ship. Since this document forms one of the primary inputs to the ACCESS system, any error or incompleteness in the document preparation causes corresponding inaccuracies in the management information reports produced by the system (see Figure 14, page 73).

From the inception of the ACCESS program, inaccuracies in the source documents prepared by the ships have limited its effectiveness.[1] In many cases, the individual ships and type commanders, unaware of the extent of these errors, have used the ACCESS reports as a basis of decision-making, and in the end found that the wrong decision had been made. Other ships have found that because of inaccuracies in the ACCESS reports, they have not been able to substantiate fully their annual budget requests.

Another of the prominent problems with the ACCESS program is the time lag between the end of a reporting period and the time the ACCESS report is prepared by the type commander and returned to the ship. Many supply officers do not institute supplementary management information of their own to bridge this time gap. Therefore, based on the most current ACCESS report, possibly thirty or sixty days old, the ship's performance may be good. But when the current period's report arrives some time later, the performance may have declined or become rather poor.

Some of these time-lag problems could be overcome by collecting a limited quantity of statistics on net and gross effectiveness,[2] and summarizing the results on a

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[1] See, Commander, Cruiser-Destroyer Force, Atlantic Fleet, Communications Message Date Time Group 171951Z, October, 1967.

[2] Net effectiveness is computed by dividing not-in-stock requests for issue by the total requests for stocked material; gross effectiveness is computed by dividing the total issues made by the total request for issues.

chart such as that presented in Figure 15. This charting should be performed at least weekly so that unfavorable trends can be detected, and corrective measures instituted, before the condition worsens.

Some of the type commanders are of the opinion that the basic problem with the ACCESS program is a lack of understanding on the part of commanding officers and supply officers of the correct interpretation of the management reports produced by the system. To combat this problem, the type commanders have instituted formal training programs to enhance a more abstract understanding of these reports.

From a review, conducted by this author, of the discrepancies reflected in the annual supply inspection reports, it appears that there is a definite requirement for more formal training in both document preparation procedures and in the proper interpretation of the report information. Without this training the program will never function with the degree of effectiveness that was envisioned in its design.

Managerial auditing.--One means of insuring effective operations is through the control device of internal or managerial auditing. Assuming that appropriate standards or objectives have been established for the organization, the managerial audit serves to compare actual accomplishment against planned results, and indicates at what points corrective action is necessary.

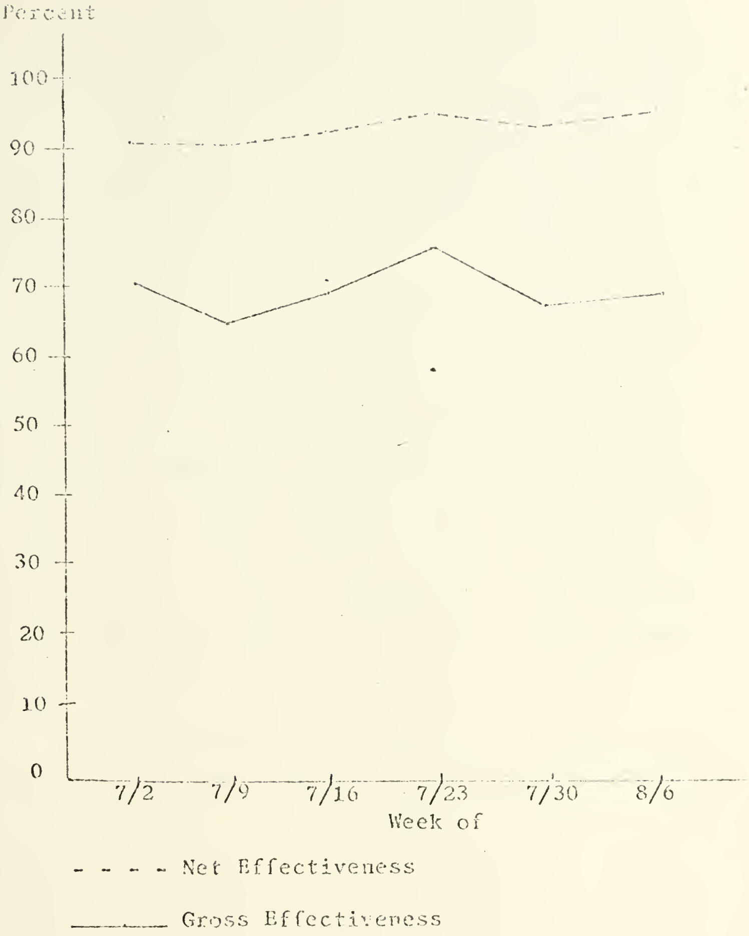

Fig. 15.--Illustration of a Net and Gross Effectiveness Chart

In shipboard supply management, it is neither intended nor physically possible for the supply officer either to perform or to check all of the detailed work of his subordinates. Therefore, he must engage in timely and selective managerial auditing in order to discover problem areas and get them corrected before all control is lost.

The shipboard supply operation is based on a system of detailed procedures with numerous and intricate checks and balances. These are reasonably well defined and described in procedural manuals published by the Naval Supply Systems Command and the Comptroller of the Navy. Each ship supply officer must be sure that he understands the provisions of these manuals, and how to develop audit trails from the documents and reports that are produced from the daily operation of the supply function aboard his ship.

One of the purposes of the annual supply inspection, performed by the type commander's staff, is to evaluate how well a ship has carried out these procedures. After reviewing several hundred of these inspection reports, it is fairly evident that procedural errors have produced inaccurate management information, which has in turn led to numerous instances of poor decision-making. There is little doubt that afloat financial decision-making could be greatly improved by each ship's supply officer devoting a more conscientious management effort to the periodic appraisal of his operation.

In the opinion of this author, the intra-ship managerial audit seems to be the best and most feasible means for improving all aspects of the afloat financial and material management systems.

CHAPTER V

FINDINGS AND RECOMMENDATIONS

The major findings of this paper are as follows:

1. The financial management function is not conducted in the same manner at the afloat forces level as it is at the central levels of government, or in the major Navy command headquarters. Budgeting and funding in the afloat forces are based primarily on past performance, adjusted for predicted changes in the operational pattern. The operating budgets, containing the annual allocation of funds, are executed through spending decisions formulated by the functioning of the shipboard material management system. However, disregarding differences in the detailed budgeting and funding procedures at the upper and lower organizational levels, the basic afloat financial management system has undergone changes to accommodate the central reporting requirements of the Department of Defense and the Department of the Navy, and by doing so has produced a more effective and responsive system.

2. The legal requirements of the appropriation accounting system make strong and centralized control necessary. The large volume of statistics required to justify budget requests necessitates the collection of

great quantities of operating statistics. Both of these requirements hamper afloat financial systems design, and place burdensome workload requirements on the individual ships.

3. Deviations from the basic afloat financial management system design, by the different type commanders, cause confusion to the personnel performing the detailed record-keeping, and in addition complicate enlisted personnel training efforts. In some cases, this same condition leads to record inaccuracies and the loss of productive man-hours. It would seem that this circumstance requires a greater degree of procedural uniformity throughout the afloat forces if the supply management effort is to become more effective.

4. Change in the military is often a slow process. In the area of financial management, the lack of funds, the bureaucratic nature of the organization and differences in the operational patterns of the afloat units have been the greatest deterrents to effecting changes that would lead to a more integrated and responsive financial and material management system.

5. The potential effectiveness of the present afloat financial/material management system is hindered by the following factors:

(a) The lack of detailed and explicit procedural manuals to guide operating personnel in the preparation of source documents.

(b) The failure of many supply officers to perform selective managerial audits designed to detect weaknesses in the ship's management processes.

(c) A number of ship commanding officers and supply officers do not fully understand how the system is designed to function. Therefore, they are unable to use the management information provided by the system as a tool for improving the effectiveness of their managerial efforts and in rational decision-making.

Many of the weaknesses and problems of the present afloat financial/material management system have been detailed immediately above and in other sections of this paper. Remedies to remove or to lessen the impact of some of these weaknesses can be effected only through changes to the political process or the appropriation accounting statutes, and therefore rest primarily in the hands of the Congress. Consequently, recommendations for improvement in these areas are beyond the scope of this paper.

The recommendations which follow, however, would seem to fall within the jurisdictional realm of the Navy, and are designed to provide improvement in the more important system weaknesses, at least from a conceptual point of view:

1. Provide a more intensive formal training program for fleet enlisted personnel in the supply ratings. This can be accomplished within the facilities of the presently established fleet training centers by increasing course

lengths and revising and expanding curriculum coverage. This formal training should be supplemented by more aggressive training efforts at the shipboard level.

2. Effect changes in the current system that will reduce the accounting workload of the afloat forces, particularly at the shipboard level. Much progress could be made in this direction by:

(a) Consolidating the requisition document and the material issue document into one multipurpose requisition/issue document.

(b) Reducing the efforts required of the ships in reconciling the detailed accounting listings prepared by the NRFC. This can be accomplished by placing the ships on direct expenditure accounting for all orders placed for less than some amount, say $50.[1] Under such a concept of direct expenditure accounting, the ship would be precluded from making a detailed accounting entry in its records, and the NRFC would make the entry on the official accounting records only at the time that the final bill is received from the supplying activities. Therefore, the matching and reconciliation of the detailed accounting listings for requisitions with a money value of $50 or less would no longer be necessary.

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[1] See the Navy Audit Service report on Review of Accounting for Fleet Commands and Units. The auditors predicted, from their investigation, that over 50 percent of the afloat requisitions could be eliminated from the matching process under a procedure which excluded the ship from performing detailed accounting on requisitions of a value of $50.00 or less.

(c) Require a greater uniformity in the financial management procedures throughout the fleet. This would not only provide for more uniform source data input into the fleet financial information system, but in all probability would improve overall system accuracy. This could be accomplished either through the revision of NAVCOMPT procedural manuals on afloat financial management procedures or through the issuance of a similar publication by the Chief of Naval Operations. Under the present organizational structure, the Chief of Naval Operations publication would appear to be the better choice.

(d) Rewrite the current financial and material management procedural manuals to provide more detailed guidance for the afloat forces in carrying out their daily financial and material management functions. However, as this rewriting is accomplished, every effort should be made to review the system from a conceptual standpoint, and not introduce additional controls on an already overcontrolled system.

APPENDIX A

GLOSSARY OF ACRONYMS

ACCESS	Afloat Consumption Cost and Effectiveness Surveillance System
APF	Annual Planning Figure
CINCLANTFLT	Commander, U.S. Atlantic Fleet
CINCPACFLT	Commander, U.S. Pacific Fleet
CNO	Chief of Naval Operations
COMCRUDESLANT	Commander, Cruiser-Destroyer Force, U.S. Atlantic Fleet
COMCRUDESPAC	Commander, Cruiser-Destroyer Force, U.S. Pacific Fleet
EOB	Expense Operating Budget
FYDP	Five-Year Defense Program
NAVCOMPT	Navy Comptroller
NAVLOGSIP	Naval Logistics Support Improvement Plan
NRFC	Navy Regional Finance Center
OB	Operating Budget
OPTAR	Operating Target
O & MN	Operations and Maintenance, Navy (Appropriation)
PICA	Procedure for Inventory Control Afloat
RMS	Resources Management Systems
SECNAV	Secretary of the Navy
SOAP	Supply Operations Assistance Program

APPENDIX B

DEFINITION OF TERMS

ACCESS - Afloat Consumption Cost and Effectiveness Surveillance System.--An automated system to collect and summarize consumption, inventory, fiscal, and material deficiency data. ACCESS provides type commanders with the capability to monitor inventory and financial management effectiveness in ships.

CNOBO - Chief of Naval Operations Budget Office.--Responsible for the administration and suballocation of all O&MN funds and operating resources to carry out CNO approved programs. CNOBO is the CNO agent for allocation of resources through the chain of command.

Cost Center.--The first subdivision of a responsibility center, identified by a unit identification code. All ships and staffs are cost centers under a type commander, who is a responsibility center.

EOB - Expense Operating Budget.--The annual budget of a responsibility center under a Five Year Defense Program. Type commanders will assign EOB's from the expense limitations provided by fleet commanders. These EOB's will be held at the type commander level. OPTAR's will be assigned from EOB's.

Equipage.--Items of equipment that require specific management controls afloat because of their high unit cost, vulnerability to pilferage, or essentiality to ship's mission. Examples of equipage are: binoculars, cameras, portable electronics test equipment, and navigation instruments.

Expense Limitation.--The maximum amount of money that may be expended by a type commander within a FYDP program. EOB's are created from expense limitations.

Fund Code.--A two-character code representing a complete accounting classification code. The first character represents the expense limitation holder (i.e., the type commander); the second character represents the purpose of the expenditure (i.e., repair parts, consumables).

General Ledger.--The book of accounts in which all Expense Operating Budget accounting entries are ultimately summarized. A general ledger is maintained for each Expense Operating Budget by the assigned accounting activity. The accounts of the general ledger provide a single overall accounting control for the Expense Operating Budget.

Naval Ships Systems Command.--A technical command of the Naval Material Command responsible for planning, designing, procurement, maintenance, and repair parts provisioning of ships and their complete installed equipments. Prior to May, 1966, NAVSHIPS was the Bureau of Ships.

Naval Supply Systems Command.--A technical command of the Navy Material Command responsible for all facets of procurement, control, and equipage throughout the Naval Establishment. NAVSUP also provides technical guidance in all matters of material management to the Operating Forces. Prior to May, 1966, NAVSUP was the Bureau of Supplies and Accounts.

Obligation.--The estimated cost of an order for chargeable material. An obligation reduces funds available. When funds are expended to liquidate an obligation, an expense is incurred.

OPTAR - Operating Target.--The amount of money given to a cost center from which specified operating and maintenance costs must be funded. OPTAR's are granted through the chain of command from EOB's held by type commanders.

Resources.--The men, money, material, and services required by a unit in the performance of its mission.

Responsibility Center.--The lowest organizational level having a significant influence on expenses and for which expense operating budgets are prepared. Type commanders are a responsibility center.

Type Commander.--Command responsible for the operational and material readiness of ships assigned to him by class, type, or similarity of mission. The type commander schedules and conducts operational training, maintenance, overhauls, supply overhauls, and sets policies and criteria for accomplishment of overall operational and material readiness of assigned ships. In addition, the type commander is the source of funds for his ships to procure operating supplies. The type commanders report directly to the two fleet commanders. They are not laterally connected.

UIC - Unit Identification Code.--A five-digit number used to identify those activities and commands which may be charged through the accounting system. Each cost center (ship or unit) has a unique UIC. Each UIC falls under only one FYDP program and can receive an OPTAR only from an EOB under that program.

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